



Daniel Rohit

Quality Early Childhood Education at low fees: case study in Chennai, India

Master's thesis

KASVATUSTIETEIDEN TIEDEKUNTA

Education and Globalization, Master's Programme in Education

2019

University of Oulu

Faculty of Education

Quality Early Childhood Education at low fees: case study in Chennai, India (Rohit Daniel)

Master's thesis, 135 pages, 14 appendices

April 2019

The ubiquity and the poor quality of low-fee private schools in India and other developing countries are well-researched subjects. Studies have also shown that parents from low-income households in these countries are increasingly enrolling their children in these schools. However, not much research has been done on the subset of low-fee private schools that provide good quality education in spite of the financial and systemic challenges associated with such schools. This qualitative case study aims to understand how one such low-fee private school in Chennai, India works to provide good quality early childhood education (ECE).

The case study was guided by five theoretical propositions and two rival propositions which were based on established conceptual frameworks such as Rowan's (1997) 'teachers' effectiveness framework,' Hallinger's (2011) 'leadership for learning model,' and distributed leadership. The study relied on three types of data sets to help triangulate the findings: (1) classroom observation notes and the rating of the ECE environment using the Tamil Nadu Early Childhood Environment Rating Scale (TECERS); (2) semi-structured, in-depth interviews with four preprimary teachers and four school leaders; and (3) relevant documents such as lesson plans used by the preprimary teachers and various webpages from the school's website.

The findings of the study validated the theoretical propositions while invalidating the rival propositions. The results point to two key drivers of the good quality ECE in the case study school: (1) motivated and capable teachers, and (2) a distributed school leadership that was focused on learning. The findings also brought out the critical role of the school leadership in creating an enabling school culture and in building teacher capacity. Furthermore, the findings validate the conceptual frameworks in the context of low-fee private schools in urban India. However, acknowledging that the findings could have local relevance, further research is recommended in other low-fee private schools in diverse contexts to understand their universal applicability across low-fee private schools in India and other developing countries.

Keywords: low fee private schools, budget private schools, affordable private schools, early childhood education, quality of early childhood education, ECE environment, urban India

Abbreviations

AERA	American Educational Research Association
ASER	Annual Status of Education Report
BBC	British Broadcasting Corporation
BERA	British Educational Research Association
CBSE	Central Board of Secondary Education
CISCE	Council of the Indian School Certificate Examinations
COI	Constitution of India
DAE	Department of Atomic Energy (Government of India)
DFID	Department of International Development
DISE	District Information System for Education
DCSF	Department for schools, children and families
D.Ed	Diploma in Education
ECCE	Early Childhood Care and Education
ECCD	Early Childhood Care and Development
ECD	Early Childhood Care Development
ECE	Early Childhood Education
ECEC	Early Childhood Education and Care
ECERS	Early Childhood Environment Rating Scale
EFA	Education for All
GNI	Gross National Income
KG	Kindergarten
LKG	Lower Kindergarten
MDGs	Millennium Development Goals
MSSRF	MS Swaminathan Research Foundation
MWCD	Ministry of Women and Child Development
NCCS	New Consumer Classification System
NECCEP	National Early Childhood Care and Education Policy
NELS	National Education Longitudinal Study
NEUPA	National Institute of Educational Planning and Administration
NGOs	Non-governmental Organizations
OECD	Organization for Economic Cooperation and Development
IB	International Baccalaureate
ICDS	Integrated Child Development Services
IDELA	International Development and Early Learning Assessment
IECEI	India Early Childhood Education Impact Study
IGCSE	International General Certificate of Secondary Education
IJMHS	Infant Jesus Matriculation Higher Secondary School
ISCED	International Standard Classification of Education
ITI	industrial training institute
PIPE	Program to Improve Private Early Education
RBI	Reserve Bank of India

RTE Act	Right to Education Act
SDG	Sustainable Development Goal
SDGs	Sustainable Development Goals
TECERS	Tamil Nadu Early Childhood Environment Rating Scale
UDHR	Universal Declaration of Human Rights
UIS	UNESCO Institute for Statistics
UKG	Upper Kindergarten
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USD	United States Dollar

Forward

This research study was undertaken to meet the academic requirements of the master's degree programme in Education and Globalisation at the University of Oulu, Finland. While the research was carried independently by the student researcher and author of this research report, the successful completion of this research study relied on the contributions of various people.

First, I would like to thank my thesis supervisor Professor Elina Lehtomäki for her guidance, critical feedback as well as her support and encouragement through the last 9 months. I truly understand and appreciate the role that you have played in this study as my supervisor. I couldn't have wished for a more direct, prompt, approachable, and knowledgeable supervisor.

Secondly, I would like to thank my wife Nikitha and my son Nathan for being patient, tolerant as well as supportive, especially while I spent the last few months in isolation writing this research report. Thanking for understanding and giving me the quiet space that I need to work.

Thirdly, I would like to thank the owners and school leaders of the school where this research study was carried out for granting me access to conduct my research at the school. The same heartfelt gratitude goes out to the preprimary teachers for agreeing to participate in this study.

Finally, I would also like to call out my friend and co-researcher Ragavijaya G. for willingly, and without ever complaining, agreeing to help me with the translations required for this research study and for agreeing to be the second researcher for the classroom observations.

Contents

1	Introduction	9
1.1	Motivation for research	9
1.2	Primary and secondary research questions	12
1.3	Scope and limitations of the research study	13
2	Situating the study through literature review	16
2.1	Understanding early childhood education and its salience	16
2.2	Understanding the ECE sub-goal 4.2 of SDG 4: challenges and risks	19
2.3	Overview of early childhood education in India: policy and provision	21
2.4	Overview of the Indian education system: history, structure, and provision	24
2.5	Understanding low-fee private schools: opportunities and challenges	29
3	Theoretical and conceptual frameworks	36
3.1	Theoretical framework	36
3.1.1	<i>Ontological assumptions</i>	36
3.1.2	<i>Epistemological assumptions</i>	37
3.1.3	<i>Assumptions about human nature</i>	38
3.1.4	<i>Methodological choices</i>	38
3.2	Conceptual frameworks and research propositions	39
3.2.1	<i>Rowan's teachers' effectiveness model</i>	39
3.2.2	<i>Hallinger's 'leadership for learning' model</i>	40
3.2.3	<i>Distributed leadership model</i>	42
3.2.4	<i>Rival and null propositions</i>	44
4	Research Methodology: the case study	45
4.1	Defining the case study type used in this research study	45
4.2	Selection of the case study school	47
4.3	Types of data collected, tools used, and processes followed	50
4.3.1	<i>Classroom observations using the TECERS tool</i>	50
4.3.2	<i>Semi-structured in-depth interviews using interview protocols</i>	53
4.3.3	<i>Document analysis: retrieval and storage</i>	57
4.4	Validity and reliability of the research study	58
4.4.1	<i>Construct validity</i>	59
4.4.2	<i>Internal validity</i>	59
4.4.3	<i>External validity</i>	60
4.4.4	<i>Reliability of the research</i>	60
5	Findings from the research study	61
5.1	Description of the classroom observation scores on the TECERS tool	61

5.1.1	<i>Infrastructure – Furnishing and Physical Setting</i>	62
5.1.2	<i>Personal Care and Routine</i>	62
5.1.3	<i>Physical Learning Aids</i>	64
5.1.4	<i>Language and Reasoning Experiences</i>	64
5.1.5	<i>Fine and Gross Motor Activities</i>	65
5.1.6	<i>Creative Activities</i>	66
5.1.7	<i>Social Development</i>	66
5.2	Findings from the qualitative interviews	67
5.2.1	<i>Theme 1: Culture of collaboration, freedom, appreciation, and learning</i>	68
5.2.2	<i>Theme 2: From accidental teachers to highly motivated teachers</i>	74
5.2.3	<i>Theme 3: Engaged and supportive school leaders</i>	77
5.2.4	<i>Theme 4: Unorthodox teacher selection criteria and training methods</i>	80
5.2.5	<i>Theme 5: Shared understanding of importance of ECE and appropriate pedagogy</i>	83
5.2.6	<i>Theme 6: Lack of shared understanding of school's vision</i>	85
5.2.7	<i>Theme 7: Shared and distributed leadership</i>	87
5.2.8	<i>Additional concepts and areas explored in the transcripts</i>	91
5.3	Document review	95
5.3.1	<i>Lesson plans by education intervention</i>	95
5.3.2	<i>Lesson plans prepared by the preprimary teachers</i>	97
5.3.3	<i>School's website</i>	98
6	Discussion	102
6.1	Situating the findings using the pattern matching logic	102
6.2	Relevance of the findings for good quality ECE in low-fee private schools	107
7	Ethical considerations	108
7.1	Responsibilities to participants	108
7.2	Conflict of interest	110
8	Conclusion	111
	References	112

1 Introduction

The aim of this introductory chapter is to inform the readers about the overarching factors which influenced my decision to undertake this particular case study research. The chapter begins by presenting the key motivations which helped me narrow the domain as well as the specific area of inquiry for this study. Next, it introduces the main research question posed at the start of this study and the secondary research questions which were then formulated to help guide the research design. The final section of this chapter draws attention to the limitations of this study which influenced some of the design and methodological choices.

1.1 Motivation for research

My motivation for undertaking this particular research study are as follows (and in the same order of importance): (1) my interest in early childhood education (ECE), which has grown along with my son Nathan Asher who was 6 years old at the time of writing this report; (2) my experiences working (since November 2016) on the *Program to Improve Private Early Education* (PIPE)—a multi-year early childhood education program in India by FSG, a global non-profit consulting firm that focuses on social impact; (3) and my belief that the private sector has a key role to play in achieving the 2030 Sustainable Development Goals (SDGs), particularly goal 4, which is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (UN General Assembly, 2015, p. 17).

My interest in early childhood education and its impact on life outcomes

Reflecting on my own role as a parent and its impact on Nathan's development over the last six years has impressed on me the critical role of early life experiences on later life outcomes. As a father and an educator, I strongly believe that the best chance for undoing and overcoming intergenerational, systemic inequalities is by intervening in the early years. There is a growing body of research supporting this claim and the findings from key studies are covered in chapter 2 of this report. However, in this section, I would like to state that my interest in ECE and my belief in the critical role of early life experiences in determining later life outcomes are the primary reasons for undertaking this case study on how a typical low-fee private school in urban India worked to achieve good quality ECE in its preprimary grades.

My experiences working on the Program to Improve Private Early Education

While I was very clear on why I wanted to focus on early childhood education, the decision to carry out my study in a low-fee private school stems from my experiences on PIPE. PIPE is a good example of a market-based solution¹ where FSG is working to catalyze the low-fee private school market in India to provide good quality ECE by working on both the supply and the demand side of the equation. On the supply side, PIPE is working with eight education companies with good² quality ECE solutions to help them enter and scale in the low-fee private school market (as most of these education companies historically catered primarily to mid or high-end private schools). On the demand side, PIPE is creating awareness among parents about good³ quality ECE, directly through mass media and indirectly through the eight partner companies. On PIPE, I have been leading the monitoring and evaluation of the rollout and implementation of various ECE solutions by PIPE's partner companies in hundreds of low-fee private schools across five metropolitan⁴ cities in India—Mumbai, New Delhi, Chennai, Bangalore, and Hyderabad—with the objective of identifying gaps in the rollout and in the implementation. Part of PIPE's core function is to help these eight partner companies develop solutions for these gaps by either tweaking the core product (books, teacher manuals, teaching and learning materials) or by changing their rollout and teacher training strategies to more effectively train teachers in low-fee private schools.

In the above context, I have visited hundreds of low-fee private schools over the past two years, and in the 2018-19 academic year alone PIPE actively monitored the implementation of the eight partners' ECE solutions in 70 low-fee private schools across 6 cities in India (the five metropolitan cities mentioned earlier, plus a tier 1⁵ city—Mysore). Based on my observations as well as on PIPE's extensive research on low-fee private schools across urban India, the quality of ECE in most low-fee private schools in urban India is very poor—in

¹ FSG, Mumbai specializes in market-based social solutions, i.e., the team practices and promotes social solutions which work through market signals. Source: <https://www.fsg.org/areas-of-focus/inclusive-markets>

² FSG defines good quality from a provider's perspective as (i) developmentally appropriate curriculum; (ii) activity-based pedagogy; and (iii) simple solution that untrained teachers can implement after basic training.

³ FSG defines good quality from parents' perspective as (i) developmentally appropriate curriculum; (ii) activity-based pedagogy; and (iii) a focus on conceptual learning outcomes over rote learning outcomes.

⁴ Metropolitan cities are cities with populations of over 1 million residents. (RBI, 2011, annexure 5)

⁵ Tier 1 cities have a population between 100,000 and 1,000,000 residents. (RBI, 2011, annexure 5)

terms of both structural and process quality. The teacher-to-pupil ratios are quite poor in these schools—averaging 1:40; many classrooms lack basic furniture and are often poorly maintained, poorly lit, and have poor ventilation. In terms of process quality, most preprimary teachers in low-fee private schools are untrained and use predominantly rote instructional strategies as well as harsh disciplinary methods like scolding, verbally humiliating children, and in some instances, they may also resort to corporal punishment.

While the overall story looks quite gloomy, I have also had the opportunity to visit a handful of low-fee private schools which deliver good quality ECE (basic structural quality and decent process quality⁶). These outlier low-fee private schools piqued my interest in understanding how these schools worked to achieve good quality ECE despite facing the same financial limitations and systemic challenges that typical low-fee private schools face.

My belief in the private sector's role in achieving the 2030 Sustainable Development Goals

In addition to the above motivations, my belief that the private sector has a significant role to play in achieving the 2030 Sustainable Development Goals (SDGs), particularly in developing countries like India, also influenced the selection of my thesis topic. In fact, this topic was particularly relevant in the light of FSG's research finding from a survey of 4,407 families across 8 cities in India that 86 percent of children from low-income households, which comprises 70 percent of the population in urban India, attend such schools (FSG, 2015). However, my belief in the role of the private sector also has its roots in my lived experiences in India where I have seen the government action lag the government policy by at least two decades by my conservative estimate. For instance, while the Ministry of Education in India recognized the critical role of early childhood care and education (ECCE) as early as in 1986 in the National Policy on Education (1986, part V), the National ECCE Policy and the National ECCE Curriculum Framework were both published 29 years later in 2013.

While recognizing the crucial role that governments play in formulating key policies and in protecting the rights of the economically weaker sections of the society, I believe the private

⁶ These schools had better maintained classrooms, basic furniture (benches and chairs), and teachers who, although untrained, had a better understanding of ECE than the typical low-fee private school teacher.

sector is better placed to adapt and implement these policies on the ground. In the context of education, I see immense potential in low-fee private schools as a key resource or channel for achieving the SDG 4 if governments can successfully leverage this growing education market. A good example of a step towards leveraging the private sector in India is the Right to Education (RTE) Act (2009) which calls for all private schools to reserve 25 percent of their enrollment capacity for 6 to 14-year-old children from socio-economically weaker sections of the society who cannot afford the tuition fees at these private schools. The RTE Act lays out guidelines for the government to foot the tuition fees for this 25 percent of the students enrolled in private schools under the RTE Act. While not without loopholes and ambiguity, I believe it is a step in the right direction. The school voucher systems in Colombia and Chile (Arenas, 2004) and the USA (Forster, 2013) are other good examples of how governments can leverage the private sector in education. Of course, some researchers have raised questions of whether or not private schools are equitable (Day Ashley et al., 2014; Härmä, 2009, 2011; Härmä & Rose, 2012; Härmä & Adefisayo, 2013; Akaguri, 2014; Srivastava, 2010, 2013). Nevertheless, as noted earlier, there are some good examples which illustrate that governments can leverage the private sector positively, and considering that the SDG 4 is a very ambitious goal, it is my firm belief that to achieve this goal we need to mobilize all available resources, including the private sector which incidentally already has a significant presence in the education sector, particularly in many developing countries.

1.2 Primary and secondary research questions

These three factors—and the fact that while there was ample research on the ubiquity of low-fee private schools and on their poor quality of education in India (and in other developing countries across the globe), there was little research on how a low-fee private school could work to achieve good quality ECE—helped frame this study’s primary research question.

“How does a low-fee private school in urban South India work to achieve good quality ECE environment?” (Or in other words ‘What are the drivers of the good quality ECE environment in a low-fee private school in urban South India?’)

Although most low-fee private schools in India provide low-quality ECE (a detailed review of literature on low-fee private schools in India and an overview on ECE are presented in

chapter 2 of this report), this unique market space is interspersed with schools delivering good quality ECE. This research study aims to understand how one such low-fee private school in the suburbs of the south Indian city of Chennai works to achieve this good quality ECE by undertaking a qualitative explanatory case study on the preprimary grades in the school. This particular low-fee private school was selected after confirming that the preprimary grades in the school had a good quality ECE environment as measured by the Tamil Nadu Early Childhood Environment Rating Scale (TECERS⁷) (Isely, 2001)—a validated tool based on the widely used Early Childhood Environment Rating Scale (ECERS) by Harms and Clifford (1998). A detailed description of the TECERS tool and its scoring rationale, as well as the case study school selection process and the rating of the ECE environment in the school using the TECERS tool, are presented in chapters 4 and 5 of this report.

In addition to the primary research question, the review of relevant literature also led to the following secondary research questions to help guide the design of this research study:

1. *What are the influences on the effectiveness of the preprimary teachers in the case study school?*
2. *How does the school leadership influence the quality of the ECE environment by affecting the (i) preprimary teachers, (ii) school climate, and (iii) classroom environment?*
3. *How is the school leadership distributed/ shared in the school with respect to preprimary grades?*
4. *What is the context of the school within which the leadership and the teachers work?*

1.3 Scope and limitations of the research study

Apart from the classroom observations carried out in order to confirm that the case study school had a good quality ECE environment in the preprimary grades, the research study also involved in-depth semi-structured interviews with the following key informants:

⁷ The TECERS tool was contextualized for use in India, specifically for use in the Indian state of Tamil Nadu in which the city of Chennai is located, making it ideal for use in this research study

1. Preprimary teachers – four preprimary teachers at the school were interviewed to (A) understand their beliefs, motivations, and actions around early childhood education; (B) understand their perspective on how the school leadership influenced (i) their effectiveness, (ii) the school climate, and (iii) the classroom environment.
2. School leadership – one school principal, one preprimary coordinator, one assistant school leader, and one correspondent were interviewed to (A) understand their values, motivations, and actions around early childhood education; (B) understand the leadership model and practices employed by the school leadership viz. how power, roles, and responsibilities were distributed in the school, formally and informally.

Additionally, multiple sources of data were included in the research study to facilitate the triangulation of the findings that emerged from the research study. In this context, the following relevant documents were accessed and reviewed as part of the research study:

1. The teachers' guide with detailed daily lesson plans prepared by an education intervention company⁸ (Xseed Education) to understand the influence of the intervention on the quality of the ECE environment in the preprimary grades.
2. Hand-written lesson plans prepared by the preprimary teachers to (i) understand the motivation of the preprimary teachers through their level of preparedness for their classes and to (ii) confirm findings from interviews regarding planning for lessons.
3. The various webpages published on the school's website to understand the school's history and context, vision and goals, fee structure, and other relevant information.

Limitations of the research study

This study did not include any data on the learning outcomes of the students. Instead, the scope of this study was limited to the quality of the ECE environment in the preprimary grades of the school, primarily due to limited resources. This study was undertaken by a single student-researcher and hence it would have been time-consuming as well as expensive to collect and analyze data on student learning outcomes. An assessment of preprimary-aged

⁸ The case study school was using an education intervention by Xseed Education for the preprimary grades and for grades 1 to 8 for the 2018-19 academic year. The intervention included books and learning materials for children as well as resources (teachers' guide with daily lesson plans) and trainings for teachers.

children would have involved one-on-one verbal interactions as the children were too young to independently take written assessments. Taking an average of 40 students per classroom X 4 preprimary classrooms, the researcher would have had to assess ~160 students. In terms of man-hours that would have been a staggering 320 hours (~ 2 months) of data collection at the rate of 20 minutes per child interaction using a school readiness tool such as the International Development and Early Learning Assessment⁹ tool (IDELA) by Save the Children. With only one student-researcher collecting this data on learning outcomes, the last student being assessed would have had 300 hours of additional learning time than the first student assessed, and this would have skewed the data and rendered it unfit for this research study.

Therefore, this study focuses only on the quality of the ECE environment and builds on the assumption that the preprimary students in the case study school will be school-ready at the end of senior kindergarten based on the good quality ECE environment at the school. In fact there are numerous studies that have shown a medium to strong positive correlation between the quality of ECE environment and student learning outcomes (e.g. Campbell and Ramey, 1994; Schweinhart et al., 2005; Gormley, Gayer, Phillips, & Dawson, 2005; Gormley, Phillips, & Gayer, 2008; Hustedt, Barnett, & Jung, 2007; Hustedt, Barnett, Jung, & Thomas, 2007; Hustedt, Barnett, Jung, & Friedman, 2009; Hustedt, Barnett, Jung, & Figueras, 2008, 2009; Hustedt, Barnett, Jung, & Goetze, 2009; Weiland & Yoshikawa, 2013; Wong, Cook, Barnett, & Jung, 2008; Anders et al., 2012; Brinkman et al., 2013; Lehl et al., 2016).

A second limitation of this study is that it is a single case study, again due to limited resources. A multiple case study would have been more desirable in order to confirm some of the findings of the study. However, including multiple cases would have turned this master's thesis into a doctoral dissertation, which would have taken years to complete. Hence, this research study is limited to a single, but robust case study. It is hoped that the findings of this case study would be useful to other researchers, school leaders, and ECE solution providers, who would then go out and validate the findings through other studies and pilots.

⁹ The International Development and Early Learning Assessment is a rigorous global tool that measures children's early learning and development and provides ECCD programs, donors, and government partners with clear evidence on the status of children from 3.5 to 6 years. Source: <https://idela-network.org/>

2 Situating the study through literature review

This chapter contains a comprehensive analysis of the available academic literature on the following domains relevant to this research study: early childhood education, the Indian education system, and low-fee private schools. Each domain is further sub-divided into topics that explore key questions that were posed about the domain in the context of this study. While the research questions presented in the previous chapter precede the literature review in this chapter, in the chronological order followed in this research study, the literature review preceded, and in fact, helped formulate and refine the research questions.

2.1 Understanding early childhood education and its salience

Historically, the early care and education of young children until the school-going age was informally provided by the parents themselves, or by other family members (e.g., grandparents or older siblings). However, at the turn of the 19th century, factors such as changes in the family structure from joint families to nuclear families and greater opportunities for women to join the workforce resulted in the rise of formal early childhood education and care (ECEC¹⁰) services in the form of ‘kindergartens’ offering educational services and ‘nurseries’ offering day care services in much of Europe and North America (Kamerman, 2006, p. 3). Nevertheless, similar formal ECEC services became common in other parts of the world only in the aftermath of World War II which not only resulted in the end of colonialism and the establishment of independent states in Asia and Africa, but also in the dramatic increase in the labor force participation of women globally (UNESCO, 1961; Mialaret, 1976; Fisher, 1991). Today, ECEC services for children from conception through eight years of age are available across the globe in multiple forms which could be ‘part-day, full-school-day, and full-work-day programs under education, health, and social welfare auspices,

¹⁰ Various synonymous acronyms are used in academic discourses and policy documents to refer to services for children from conception through eight years of age. The OECD for instance uses the ECEC acronym for ‘Early Childhood Education and Care.’ The Education for All (EFA), Global Monitoring Report team on the other hand uses the ECCE acronym for ‘Early Childhood Care and Education.’ Similarly, UNICEF uses ECCD for ‘Early Childhood Care and Development’ and the World Bank uses ECD for ‘Early Child Development.’ For the purpose of this research study, the acronym ECEC for ‘Early Childhood Education and Care’ is used as the preferred term and the other variations—ECCE, ECCD and ECD—may be used interchangeably.

funded and delivered in a variety of ways in both the public and private sectors’ (Kamerman, 2006, p. 1). However, the focus of this research study is on one specific ECEC service—‘early childhood education (ECE)’—as explicitly defined in the next sub-section.

Defining early childhood education

The International Standard Classification of Education (ISCED) level 0 classifies *early childhood educational development* as education content designed for children in the age range of 0 to 2 years and *early childhood education* as educational content for children from age 3 years to the start of primary education (UNESCO, 2012, p. 26), which in most countries is either 6 years (e.g., India) or 7 years (e.g., Finland). In contrast, other ECE services may cater to different age groups ranging from conception to 8 years of age. For instance, health and nutrition-focused ECEC programs cater to the full spectrum of early years from conception to eight years of age, while most daycare services cater to children from 6 months until they join preprimary or primary school. ECE also differs from other ECEC services in the focus of the services in that ECE caters solely to the early educational or learning needs of young children while other ECEC services may cater to either other non-educational needs such as early care (e.g., daycare services), or health and nutrition (e.g., immunization drives or mid-day meals), or a combination of early educational and other needs (e.g., play-schools offering daycare services along with some unstructured learning).

Salience of Early Childhood Education: evidence from neuroscience

Recent developments in neuroscience have revealed that while brains are built over time, starting in the mother’s womb and continuing on into adulthood and until death, the first five years of a child’s life is when 90% of the brain development (Courchesne et al., 2000) happens. Neuroscientists estimate that an average healthy human baby is born with about 100 billion neurons and each of these neurons holds the potential to connect with up to 15,000 other neurons through synapses that are formed as a result of experiences (Brotherson, 2009, p. 3-4). In fact, between birth and until the age of 8, about 700 new synapses are formed per second in the brain of a young child (Bourgeois, 1997; Huttenlocher & Dabholkar, 1997; Shonkoff & Phillips, 2000). This synaptic network forms the child’s brain architecture, or the connectome (Lichtman & Sanes, 2008), which impacts all the health, learning, and behavior that follow (Shonkoff and Phillips, 2000; Weaver, 2014). While lifelong learning is

possible because the connectome is constantly changing with each life experience (Shonkoff & Phillips, 2000, p. 31), the rate of synaptic formation drops significantly past the age of 8 years when the brain starts pruning synapses that are weak and/ or unused while strengthening synapses that are used repeatedly and frequently (Shonkoff & Phillips, 2000, p. 187).

Research is clear about the significance of the first 8 years of human life as it is in these early years that the development of the brain has a greater chance of being positively influenced by protective interventions than by interventions later in life (Werker & Hensch, 2015). Moreover, the damage done to the brain through adverse early life experiences such as violence, malnutrition, unresponsive parenting, and lack of learning opportunities in a stimulating environment is long-term and often difficult and expensive to rectify in later years (Shonkoff & Garner, 2012; Luby, 2015, Noble, et al. 2015). Moreover, while multiple factors such as health, nutrition, security and safety, responsive caregiving, and early learning interact with each other and influence the acquisition of competencies (Black et al., 2016, p. 4), a growing body of research (Shonkoff and Phillips, 2000; Shonkoff et al., 2009; Meaney, 2010; Szyf, 2009a; Szyf, 2009b; Fox et al., 2010) points to the critical role of early stimulating experiences—particularly from birth to age five—in unlocking the developmental potential of a child. In fact, recent evidence from economics also highlights the importance of investing in early years interventions as briefly described in the next sub-section.

Cost-benefit ratio and annual returns of early interventions: evidence from economics

Updating earlier estimates by Heckman et al. (2010) of 7-10% annual returns on investments in quality early interventions, García and Heckman (2016, p. 54) recently estimated a higher rate of return of 13.7% per annum, or a benefit of 7.3 dollars for every dollar spent on high quality interventions in the early years. In contrast, the return to the same dollar diminishes when the investment is made on interventions in later life stages as indicated by the Heckman curve (Heckman, 2008, p. 91) in figure 1, provided in appendix 1. It is important to note that these early investments must be followed by later investments for maximum value to be realized due to dynamic complementarity, or synergy (Heckman, 2008, p. 22) as the higher skill base in early years enhances the productivity of later investments.

Besides the higher yield of investments in the early years, Heckman (2008, p.22) also stresses the absence of ‘the traditional equity-efficiency tradeoff’ in early interventions as they not only ‘promote economic efficiency,’ but also ‘reduce lifetime inequality.’ He further notes that ‘remedial interventions for disadvantaged adolescents who do not receive a strong initial foundation of skills face an equity-efficiency tradeoff’ as ‘they are difficult to justify on the grounds of economic efficiency and generally have low rates of return.’ It is no wonder that policymakers and educationists alike are increasingly shifting their focus and efforts to interventions that target the early years. This shift is evident in the inclusion of early childhood education in the Sustainable Development Goals for 2030 as sub-goal 4.2 (UN General Assembly, 2015, p. 17). In contrast, the first set of global development goals—the Millennium Development Goals for 2015—focused only on universal primary school education and was silent on the access and provision of ECEC services (MDG, 2000, p. 5).

2.2 Understanding the ECE sub-goal 4.2 of SDG 4: challenges and risks

The ECE sub-goal 4.2 of the Sustainable Development Goal 4 on education states that *‘by 2030, ensure that all girls and boys have access to quality early childhood development, care, and preprimary education so that they are ready for primary education’* (UN General Assembly, 2015, p. 17). This sub-goal is particularly significant because although child mortality rates in many low and middle-income countries have decreased dramatically in recent decades (UNICEF, 2018), in a landmark study, McGregor et al. (2007) estimated that in the year 2004 about one-third of the children under age 5 (or about 219 million¹¹) in low-income and middle-income countries were at risk of not reaching their development potential¹² as a result of poverty and inadequate nutrition. McGregor et al. (2007) also estimated the economic loss due to the lost developmental potential in the early years to an average deficit of 19.8% in adult annual income. The failure of children to fulfill their developmental potential in early years subsequently results in poor levels of cognitive development which in turn often leads to low levels of educational attainment, both of which are linked to later earnings

¹¹ In 2010, using improved source data, McGregor and colleagues revised this estimate upward to 279 million (or about half of the children in 2004).

¹² Developmental potential is the ability to think, learn, remember, relate, and articulate ideas appropriate to age and level of maturity, and an estimated 39 percent of the world’s children under age five years do not attain this potential (Grantham-McGregor and others 2007).

as well as the intergenerational transmission of poverty. Furthermore, the loss of developmental potential also affects national development, particularly in developing countries with large proportions of such children. In fact, most of these disadvantaged children (89 million) are in South Asia, with India alone accounting for 65 million such children. The other nine countries which together with India account for 66% (145 million) of disadvantaged children (in millions) are Nigeria 16, China 15, Bangladesh 10, Ethiopia 8, Indonesia 8, Pakistan 8, Democratic Republic of the Congo 6, Uganda 5, and Tanzania 4 (McGregor et al., 2007).

Given the staggering number of children (249.4 million¹³ in 2010) at risk of not reaching their developmental potential across the globe, and the personal as well as national consequences of this loss, it is imperative for global efforts to focus on early childhood care and education, especially with the promising results from longitudinal follow-up studies which provide a strong economic justification for investing in early childhood care and education services (Hoddinott et al., 2013), especially in children younger than 3 years (Doyle et al., 2009). In fact, results from several longitudinal follow-up studies on children exposed to adverse conditions such as poverty, malnutrition, and violence showed beneficial effects of the interventions on health biomarkers (Campbell et al., 2014), on competence (e.g., general knowledge, intelligence quotient, and educational attainment) (Maluccio et al., 2009; Walker et al., 2011), on reductions in violence, social inhibition, and depressive symptoms (Walker et al., 2011), on adult wage-earning (Gertler et al., 2014; Hoddinott et al., 2008), and also on growth in the subsequent generation (Behrman et al., 2009; Walker et al., 2015).

The salience of quality of intervention in the ECE sub-goal 4.2

The 2015 Millennium Development Goals Report estimated that despite achieving 91% primary enrollment globally (MDG, 2015, p. 24) an estimated 617 million children and adolescents (or 56 percent of the children and adolescents in the world) were not achieving minimum proficiency levels in reading and mathematics (UIS, 2017, p. 1). The goal to enroll children in schools missed the salience of quality of education in achieving learning outcomes. Learning from the MDGs, the SDG 4 explicitly calls out the salience of quality of

¹³ In a follow-up study, Lu C et al. (2016) estimated that the number of at risk under-5-year-old children dropped from 279 million (51 percent of children) in 2004 to 249.4 million (43 percent of children) in 2010.

intervention, particularly in the sub-goal 4.2 as “early childhood is [both] a time of great opportunity and considerable risk” (Shonkoff & Fisher, 2013, p. 24).

There is ample empirical evidence linking the quality of the ECE intervention—such as increased intensity of professional development of teachers with a focus on classroom practices (Bernal, 2010; Yoshikawa et al., 2011) and curricular interventions focused on particular domains such as language/ pre-literacy skills (San Francisco et al., 2006) or socio-emotional skills (Baker-Henningham et al., 2009)—and the improved cognitive outcomes reflected in achievement in early primary grades (Aboud, Hossein, and O’Gara, 2008; Engle et al., 2011; Reynolds, 2000; Kagitcibasi et al, 2001). Similar evidence from longitudinal studies such as the *High/ Scope Perry Preschool Study* (Schweinhart and Weikart, 1997), the *Abecedarian Experience* (Ramey and Ramey, 1998), and *The Effective Provisioning of Preschool Education Study* in England (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2004) as well as from small-scale experiments such as the *Early Headstart* (Love et al., 2001) and the impact assessment study carried out by the *International Association for the Evaluation of Educational Achievement* involving 1500 preprimary children from ten countries (Montie, 2006) have shown conclusively that high-quality ECE interventions result in sustained benefits in terms of both cognitive learning and socio-emotional adjustment.

2.3 Overview of early childhood education in India: policy and provision

While Article 45 of the Indian Constitution, under the directive principles of the State (or duties of the State), mandates the State to provide ten years of free and compulsory education for all children under the age of fourteen years (COI, 1950, pp. 23), early childhood education is yet to be recognized as a constitutional or fundamental right of children under the age of six years. Progress was made in the Eighty-sixth Amendment to the Constitution in 2002 (Constitution Amendment Act, 2002) when it was resolved to make universal and compulsory primary education a fundamental right (under Article 21 A) and Article 45 was rewritten to make the provision of early childhood care and education to children below the age of six years a directive principle of the State. However, the Constitution still reads that the revision is ‘yet not in force, date to be notified later on.’ Similarly, while the Right of Children to Free and Compulsory Education (RTE) Act 2010 guarantees children their right to quality primary and elementary education, ECE is not covered under this landmark act. Rather, the

RTE Act only urges states to provide free ECE for children above the age of three years. Nevertheless, some progress has been made in recent years. For instance, the 12th Five-Year Plan (2012-2017) of the Government of India (Five Year Plan, 2012, p. 57-58) acknowledges the importance of ECE, particularly in the context of school readiness of six-year-old children. During this five-year period, the Government of India approved the country's first National Early Childhood Care and Education Policy (NECCEP, 2013), which also included the first National Curriculum Framework and Quality Standards for ECCE (2013).

Access and types of early childhood education centers in India

Despite the lag in policy and regulation, ECE services for children under the age of six have been around in India at least since the 1970s. Today, there is an overall 80 percent participation of children aged 3 to 6 in some form of ECE across the country. This figure is roughly the same for urban India at 79 percent (FSG, 2015, p. 24) and at 80 percent in rural India (Kaul et al., 2017, p. 29). While there is no consolidated data available on the extent of provisions of ECE services across the country, recent studies in rural India have estimated the public provision of ECE services at 70 percent and that of the private sector at 30 percent (Kaul et al., 2017, p. 25). In terms of enrollments, the recent Annual Status of Education–Rural (ASER) survey (ASER, 2018, p.51) found that in the year 2018 the number of 5-year-old children in rural India enrolled in private preschools or private schools was 28.3 and that of 6 to 14-year-old children enrolled in private schools was 30.9 percent. Although similar country-wide studies on the extent of private provision of ECE services in urban India are currently not available, the number is likely to be much higher in urban India where, as per data from a largescale market survey conducted by FSG in 2015, 86 percent of 3 to 6-year-old children from low-income households (who make up 70% of the urban population in India¹⁴) were enrolled in low-fee private schools (FSG, 2015, p. 24). Nevertheless, in terms of provision, both the public and the private sector have multiple offerings of ECE services that are available to parents, each of which is briefly described below. Figure 2, provided in appendix 2, presents a classification of the various types of ECE services.

¹⁴ Urban areas comprising of cities with a population of one million or more

1. Government provision of ECE services in India

The Integrated Child Development Services (ICDS) by the Government of India is the world's largest public-sector integrated program for children below 6 years of age. The ICDS, which began as a pilot in 35 administrative blocks¹⁵ of the country in 1975, has since been universalized and currently runs over 1.4 million early childhood development (ECD) centers known as Anganwadis or 'courtyard centers' across the country. Each Anganwadi center delivers various ECD services including health, education and nutritional support, community mobilization, and non-formal preschool education for 3 to 6-year old children. All these services are delivered in a life cycle model for pregnant and lactating women, children from birth to six years of age, and adolescent girls (Kaul et al., 2017, p. 12). Of the 94.94 million beneficiaries served by the Anganwadi's in 2017, 32.59 million were 3 to 6-year-old children who received pre-school education (MWCD, 2018, p. 39).

The government also supports the running of crèches by non-governmental organizations (NGOs) under the Rajiv Gandhi Crèche Services for Children of Working Mothers 'grant-in-aid-scheme.' These crèches provide daycare as well as health and nutrition facilities for underprivileged children below 6 years and preschool education for children in the age group of 3 to 6 years. According to available statistics, there are 23,293 crèches operating under this scheme (Kaul et al., 2017, p. 12). Apart from Anganwadis and crèches, government primary schools in some states in the country also have attached preschool classes which enroll children in the age group of 3 to 6 years. Kaul et al. (2017, p. 12) note that 'the number of preschool sections/ classes attached to schools is reported to have almost doubled from 115,372 in 2002-03 (Seventh All India Education Survey, 2002) to 215,931 during the year 2012-13 (Unified District Information System for Education, NUEPA).'

2. Private sector provision of ECE services in India

Private provision of ECE can be mainly divided into three types of services: crèches or day-care services for children under the age of 3 years; standalone preschool centers which cater

¹⁵ Each of the 29 states in India is divided into administrative districts, which are further sub-divided into blocks for the purpose of administrative ease by local governing bodies called as Panchayats. Cities have similar arrangements under the Urban Development Departments.

to children starting from 2 years (playschool) to 5 years (upper kindergarten); and schools with attached preprimary grades (nursery for 3 year old children, lower kindergarten for 4 year old, and upper kindergarten for 5 year old children). All these services can be availed at various price points starting from the affordable neighborhood daycare center or the ubiquitous low-fee private school to mid-priced preschools and private schools in tier 1 and tier 2 cities¹⁶ and international preschools and private schools in metropolitan cities.

The next section of this chapter presents an overview of the Indian education system, followed by a review of the literature on the low-fee private schools that this study focuses on.

2.4 Overview of the Indian education system: history, structure, and provision

Before the British colonized India, starting with the rule of the East India Company in 1757, ‘both the Hindus and the Muslims [the two largest populations who call India home] had their own indigenous education systems, each deeply rooted, with a great tradition of learning and scholarship behind them’ (Basu, 1982, p. 1). The Hindus followed the Gurukula system of education which was a residential system of schooling where the students lived with the teacher (Guru) in his house and helped him in all chores around the house and learned a variety of subjects such as literature, Vedas (scripture), mathematics, warfare, philosophy, medicine, statecraft, astrology, and history (Chand, 2015, p. 110). The Muslims, on the other hand, followed the Maktab (primary school) and Madarsa (secondary school) system in which the schools were typically attached to a mosque and the students learned a variety of subjects such as Persian (language), Quran (scripture), literature, mathematics, science, humanities, and law (Pandya, 2015, p. 48). In both these systems, education was not a social duty nor was it provided by the state. Hence, education was mostly availed by the minority upper castes¹⁷ in the society, while the children (boys) from the lower caste were taught their family trade by their fathers (Chand, 2015, p. 47).

¹⁶ Tier 1 cities have a population between 100,000 and 1,000,000 residents while tier 2 cities have a population between 50,000 and 99,999 residents. (RBI, 2011, annexure 5)

¹⁷ The caste system divides Hindus into four main categories in a decreasing order of socio-religious status – Brahmins (priests), Kshatriyas (warriors), Vaishyas (traders), and the Shudras (untouchables). (BBC, 2019).

After the East India Company colonized India in 1757, it did not intervene in the educational practices in India mainly because its primary interest in India was economic. However, during the 1770s and 1780s, missionaries from Europe actively established English schools across India to educate the Indians they had converted to Christianity. For example, German Lutheran Schwartz established missionary schools in Tanjore, Ramnad, and Shivaganga, while British Baptist missionaries Carey, Marshman, and Ward started missionary schools in Serampore (Vennila, 2018, p. 313-314). However, the official British government policies on Indian education would take another 50 years to crystallize as the British government tried different approaches starting with minimal interference in the 1760s and 1770s under major-general Robert Clive; then transitioning to Orientalism from the 1780s to mid-1820s under governor-general Warren Hastings who promoted the indigenous school systems; and finally culminating in a complete replacement of the indigenous systems with the British education system beginning in the 1830s with Lord Thomas Babington Macaulay leading this shift (Chand, 2015, p. 111). The new curriculum introduced during this latter period was confined to 'modern' subjects such as science and mathematics, while subjects such as religion, metaphysics, and philosophy were dropped. Moreover, English became the medium of instruction and educational activities were moved away from religious places such as temples and mosques to classrooms in special buildings called schools (Ghosh, 1995).

After gaining independence from the British in 1947, the newly formed Indian government continued with the education system put in place by the British during their rule, with the various existing education boards¹⁸ taking charge of education in schools in the 27 states which formed the quasi-federal Indian Union¹⁹. Later in 1952, the Indian constitution was amended and the Central Board of Secondary Education (CBSE) was established and this board was responsible for the curriculum, textbooks and the annual matriculation examination in schools affiliated to it, mainly in the national capital New Delhi and the seven union

¹⁸ The Uttar Pradesh (a state in India) Board of High School and Intermediate Education was the first Board set up in India in the year 1921 with jurisdiction over Rajputana, Central India, and Gwalior. In 1929, the Board of High School and Intermediate Education, Rajputana, was established. Later, boards were established in some of the states. Source: <https://www.gnu.org/education/edu-system-india.en.html#sasi>

¹⁹ The Constitution of India (COI, 1949) declares India to be a "Union of States," with a federal structure. Part XI of the Indian constitution specifies the distribution of administrative, legislative, and executive powers between the States of India and the Union/ Central government in the national capital New Delhi.

territories governed by the Central government (CBSE, 2019). Until 1976, education remained a state subject in the Indian Constitution (COI, 1950), with the Central government playing only an advisory role and each state having its own education board. However, with the Forty-Second Amendment to the Constitution in 1976 (Constitution Amendment Act, 1976), education was made a concurrent subject, with both the individual state governments and the Central governments having the power to legislate on any aspect of education. Today, in addition to the various state education boards and the Central Board of Secondary Education, private schools also have the option of affiliating themselves to private boards like the Council of the Indian School Certificate Examinations (CISCE) as well as to international boards like the International Baccalaureate (IB) and the International General Certificate of Secondary Education (IGCSE) (British Council, 2014, p. 16-19).

Structure of formal education in India

Starting at the age of 6, the Indian education system currently follows the '10 + 2 + 3' structure for education from primary school to undergraduate university degrees. The first ten years of a child's education comprises of five years of primary school and three years of upper primary school (both of which are covered under the 1950 Constitutional mandate of universal and compulsory education) as well as two years of secondary school. After secondary school, students have the option of either joining a higher secondary school for two years (also called as junior college or pre-university college in some Indian states) or a polytechnic institution for a three-year diploma course or an industrial training institute (ITI) for a 2-year certificate course. Students enrolled in higher secondary school have the option of pursuing their higher education via a three-year regular bachelor's degree or a 4-year engineering or a 5.5-year medicine professional degree. Higher secondary graduates also have the option of enrolling for a two-year primary teacher training course. Graduates with a bachelor's degree wishing to study further can pursue their post-graduate studies by completing a 2-year master's degree, followed by doctoral and post-doctoral studies. Figure 3, provided in appendix 3, presents a detailed breakdown of the Indian education system.

Types of schools in India

There are three types of provision of school education available across India—government-funded and government-provided (via government schools), government-funded but privately provided (via private aided or “Grant-in-Aid” schools), and privately funded and privately provided (via private unaided schools) (Srivastav et al., 2013, p. 3). Figure 4, provided in appendix 4, presents a graphical classification of these various types of schools in India. Additionally, the following sub-sections give a brief overview of these various types of schools to help situate low-fee private schools in the Indian context.

1. Government schools

Government schools are owned and funded by the state or central government and the staff are on the government payroll. The government school system operates in two to three tiers: primary schools (from grade 1 to grades 4 or 5), secondary schools (from grade 5 or 6 till grade 10), and higher secondary schools (from grade 9 to grade 12). The primary schools are generally managed by local municipal bodies (called panchayats), while the secondary and higher secondary schools are operated by the respective state governments (Lewin, 2011, p. 384). There are also several other types of premium segment of government schools for special groups. The Central government runs the Kendriya Vidyalays (or central schools) in all tier 1 and tier 2 cities to cater primarily to the children of the central government employees working in different states. Similarly, the Ministry of Defense runs 26 Sainik Schools across India to cater to the children of the officer cadre of the Indian Military. The Central government also runs the Jawahar Navodaya Vidyalaya (residential alternate schools) for gifted students in rural areas. Apart from these, some Central government departments also run a small number of schools catering to special interest groups such as indigenous tribals (e.g., Department of Tribal Welfare), children rescued from child labor (e.g., Ministry of Labour), and child with disabilities (e.g., Ministry of Social Justice).

2. Private aided schools

Private aided schools are a ‘public-private hybrid’ which are owned and run by private management, but the salaries of teaching staff (up to 95% of a school’s budget) equivalent to teachers’ salaries in government schools and recurrent spending on non-teacher inputs is

fully funded by the respective state governments through a “Grant-in-Aid” provision (Kingdon, 1996, p.3306; Panchamukhi and Mehrotra, 2005; Srivastava et al., 2013, p. 3;). However, the private aided schools must raise their own funds for all other costs, typically through tuition fees from parents. In order to qualify for the “Grant-in-Aid,” the school management must ensure that teachers meet set qualifications and the school also follows regulations for such schools, including a cap on the tuition fee that the school can charge. Due to the nature and amount of state intervention in the management and financing of these schools some researchers assert that these schools could be called ‘semi-government’ (Kingdon, 1996, p.3306) or ‘government-aided’ schools (Tilak and Sudarshan, 2001, p. 2).

3. Private unaided schools

Private unaided schools are owned and run by private management and receive no aid or grants from the government. Nevertheless, these schools are expected to follow regulations specifically targeted at private unaided institutions. Private unaided schools can be further classified into ‘unrecognized’ or ‘recognized’ schools based on whether the school complies with all government regulations which confers the recognition status—although in practice, as Dixon and Tooley (2005, p. 30) assert, ‘this is far from being the case.’ Based on the fee structure and the curriculum followed, ‘recognized’ private unaided schools are either elite international schools in metropolitan cities which are affiliated to various international boards such as the International Baccalaureate and Cambridge O and A levels, or they are mid-market schools in tier 1 and tier 2 cities which follow the Indian private board: Council for the Indian School Certificate Examinations (CISCE), or a government board such as the CBSE or any of the respective state education boards. ‘Unrecognized’ private unaided schools are found across urban India and are increasingly becoming common in rural India as well. These schools often charge very low fees, are commonly run out of rented buildings, and typically lack the required infrastructure to comply with the government regulations for schools. The focus of this research study is on these low-fee private unaided (and mostly unrecognized) schools and the next section delves deeper into these types of schools.

2.5 Understanding low-fee private schools: opportunities and challenges

Private provision of education for children is neither a modern nor a (neo)-liberal phenomenon. Historically, the rich and elite in all societies have always paid for educational services, outsourcing the education of their children to the best teachers that money could buy. Nevertheless, the provision of education in the second half of the 20th century was largely driven by Article 26 of Universal Declaration of Human Rights (UDHR) (UDHR, 1948, p. 54) which called for free and compulsory elementary education for all. In practice, Article 26 of UDHR took the form of State provision of education through public schools, while private education which largely consisted of elitist schools catered to the children from affluent families. However, since the year 2000, a growing body of literature (Tooley 2000a, 2000b; Tooley and Dixon, 2006; Tooley, Dixon and Gomathi, 2007; Rose and Adelabu, 2007; Srivastava, 2007a, 2007b; Bangay, 2007; Shukla and Joshi, 2008; Umar, 2008; Kisira, 2008; Baird, 2009; Härmä, 2009; Tooley, 2009; Chimombo, 2009; Akyeampong, 2009; Tooley et al., 2010, Day Ashley et al., 2014; Tooley and Longfield, 2015) has firmly established the presence of a different market of private schools that caters to low-income households in developing countries like India, Bangladesh, Pakistan, Kenya, Malawi, and Uganda. In the Oxfam Education Report, Watkins (2000, pp. 229-230) notes that “the notion that private schools are servicing the needs of a small minority of wealthy parents is misplaced a lower-cost private sector has emerged to meet the demands of poor households.”

While the mainstream narrative put public education in the spotlight in global efforts to meet the Millennium Development Goal of universal primary education by 2015, Patrinos et al. (2009, p. 3) estimated that globally the enrollment in private primary schools grew by a staggering 58 percent between 1991 and 2004. Similarly, Baum et al. (2014, p. 8) estimated that over 20 percent of total primary school enrollment in low-income countries was in private schools. These numbers are striking especially in the light of increased spending on public education globally and nearly universal access to free public primary schools.

Between 1999 and 2003, researchers published findings on the burgeoning sector of low-fee private schools²⁰ in India (PROBE 1999; Aggarwal 2000; Tooley and Dixon 2002), in Pakistan (Alderman et al. 2001; 2003) and also in many countries in Africa (Rose 2002; 2003). For example, in Haryana, India low-fee private unrecognized schools were found to be operating in “every locality of the urban centers as well as in rural areas” typically adjacent to a government school (Aggarwal 2000, p. 20). Aggarwal further notes that an estimated 50 percent of primary school-aged children in Haryana were attending private schools and the choice for parents was no longer whether to send their children to school but to “which type of school” (Aggarwal 2000, p. 21). In Lahore, Pakistan it was suggested that around half of children from families earning less than USD 1 a day attended private schools, even when there was a free government alternative (Alderman et al. 2001, p. 17). Rose (2002, 2003) identified a ‘mushrooming’ of private schools in East and Southern Africa, owing to the poor quality in government schools. Similarly, a rigorous literature review of the education sector commissioned by the DFID (Day Ashley et al. 2014) reported that a large majority of urban children attended low-fee private schools in countries like India, Bangladesh, Pakistan, Nepal, Nigeria, Kenya, Tanzania, Ghana, South Africa, Malawi, and Jamaica.

Factors behind the rise of low-fee private schools in developing countries

Heyneman and Stern (2013, p. 4) suggest that private schools have proliferated in developing countries in order ‘to meet excess demand resulting from an insufficient supply of public school spaces and/ or to provide alternatives to a failing public education system.’ Kingdon (2007, p. 183) similarly postulates that ‘poorly resourced public schools which suffer from high rates of teacher absenteeism may have encouraged the rapid growth of private (unaided) schooling in India, particularly in urban areas.’ At a global level, the failure of public education services was documented much earlier in the World Bank report on services for the poor (World Bank, 2004, p. 111), which notes that ‘in many of the poorest countries there are enormous deficits in affordable access. Poor people have less access, lower attainment,

²⁰ Different researchers and organizations have used different terms to refer to these schools. For example, FSG refers to these schools as affordable private schools (FSG, 2015); while Gray Matters Capital refers to these schools as budget private schools (Gray Matters Capital, 2012). However, in the context of this research the name low-free private schools was selected as it more accurately captures the key distinguishing feature of these schools, which is the low fees that they charge parents.

and lower quality than those better off. In many countries, public sector provision is close to dysfunctional and rife with corruption. The technical quality of instruction and learning outcomes are shockingly low, especially among poor people.’ Interestingly, despite identifying the epidemic failure of public education systems in most developing countries, the World Bank report (2004, pp. 1) urges citizens to be ‘patient,’ ‘because making services work for poor people involves changing not only service delivery arrangements but also public sector institutions.’ However, numerous research studies (e.g. Aggarwal, 2000; Alderman, Orazem & Paterno 1996; Dr’eze & Sen 2002; Tooley 2001; Tooley & Dixon 2002; Watkins 2000) on the proliferation of low-fee private schools serving ‘poor households’ have shown that citizens have voted with their feet by seeking out affordable private education for their children. Tooley (2015, p. 228) describes this phenomenon as ‘de facto privatization’ where ‘the people themselves, not the state - indeed, often against the wishes of the state – are engaged in reassigning education to private rather than state control and ownership’.

In addition to the dissatisfaction with the public education services available, researchers have also identified a secondary lever for this exodus to private schools—a preference for English as the medium of instruction in low-fee private schools (in most public schools the medium of instruction is the official State language and English is often taught only as a subject). Due to the ubiquity of the English language as the working language in most developing countries, particularly countries that were formerly British colonies, parents from low-income households in these countries believe that the ability to communicate in English gives their child a better chance of escaping a life of poverty (Sen and Blatchford 2001, Mitra et al. 2003). In India for instance, parents opt for low-fee private schools because of the perceived prestige and wage advantage associated with English proficiency (De et al., 2002; Aslam et al., 2010; Nilekani, 2010; Dixon and Tooley, 2002 & 2005).

Extent and spread of low-fee private schools in India

Garg (2011, p.13) estimated that between 300,000 and 400,000 low-fee private schools were operating in India in 2011. Kingdon (2017, p. 24) similarly estimated the presence of about 290,000 low-fee private schools across India in her ‘Report on Budget Private Schools in India 2016-17.’ A report by FSG India (FSG, 2015b, p. 7) estimated that in 2015 there are

over 150,000 low-fee private schools operating in urban²¹ India alone. However, available government data does not reflect these numbers as government officials do not include the count of unrecognized schools in the database—which Rangaraju et al. (2012, p. 28) for instance found comprised three-quarters of the schools in the city of Patna, Bihar and enrolled two-thirds of school-going children. Rangaraju et al. (2012, p.2) found that there were 1,574 private schools in Patna, which was a huge deviation from the 350 private schools as per the District Information System for Education (DISE) data; moreover, 2,38,767 school-going children out of 3,33,776 students were missing from the official data as they were attending these undocumented private schools. Rangaraju et al. (2012, p. viii) also noted that ‘mostly the missing schools are unrecognized schools, which charge very low fees and cater to the poor and low middle class and are often clustered around government schools.’

Tooley and Dixon (2002) arrived at the same conclusion in their study that government data are likely to be under-reporting the real extent of private school enrolment, for two reasons. Firstly, because government surveyors do not collect data on unrecognized private schools; and secondly, because unrecognized private school owners often wish to remain ‘off the radar’ to avoid unwanted attention from corrupt officials as unrecognized private schools often do not meet all the official requirements to operate a school in India. Tooley and Dixon carried further research and concluded that in many low-income areas there were more unrecognized/ unregistered low-fee private schools than government schools (Tooley & Dixon 2005; Tooley et al., 2007b; Tooley et al., 2007a; Tooley & Dixon, 2007). For instance, they found that 36.5 percent of schools in the three poorest zones of Hyderabad, a metropolitan city in the South Indian state of Telangana were low-fee private schools, accounting for 65 percent of children enrolled in schools (Tooley & Dixon, 2005, p. 8-9). Similarly, in Shahdara in East Delhi (an area with mostly low-income households), Dixon discovered that at least 66 percent of schools were low-fee private schools (Dixon, 2012, p. 189).

Interestingly, the rise and growth of low-fee private schools is not an urban-specific phenomenon. A large-scale survey of 20 Indian states revealed that 51% of all private rural

²¹ Cities with a population of one million or more.

primary schools were unrecognized (Muralidharan and Kremer, 2006). In terms of enrolments, while the official data (NUEPA, 2011) suggests that 20% of all primary school enrolments in rural India is in private schools, studies by non-governmental organizations like Pratham (ASER, 2010, p. 51; ASER, 2018, p. 51) put the private school enrollments at 24 and 30.9 percent in 2010 and 2018 respectively. Furthermore, the preference for private provision also extends to ECE as evident from a recent longitudinal study (Kaul et al., 2017, p. 32) which found that 23.4 percent of 6-year-old children in the rural areas in the Indian states of Assam, Rajasthan, and Telangana were attending private schools or preschool centers.

Description of a typical low-fee private school in India

The typical low-fee private school is small, with an average enrollment of around 400 students (Gray Matters Capital, 2012, p.28). While most schools have functional toilets and drinking water facilities, low-fee private schools typically lack playgrounds and other infrastructure like a library, and computer and science laboratories. Moreover, while 80 percent of schools have attached preprimary grades, only 69 percent of schools go beyond grade 8 as most low-fee private schools are not recognized by the government, making it difficult (if not impossible) for these schools to get the necessary affiliation required to conduct the matriculation examinations at the end of grade 10 (FSG, 2015b, p. 12). As far as teachers are concerned, low-fee private schools keep the costs low by hiring untrained and unqualified teachers for very low salaries in the range of USD 75 to USD 150 per month, which is a huge drop from the base salary of USD 300 in government schools. The monthly all-inclusive fee (includes the cost of books, uniforms, miscellaneous fees) in these schools starts from USD 7 and can go all the way up to USD 20 (FSG, 2015b; Gray Matters India, 2012).

Hila Mehr et al. (2013, p. 28) note that low-fee school owners are usually rooted in the school's community and they 'tend to lie on a spectrum of type archetypes: the Educationalist and the Entrepreneur.' As part of the research phase of the *Program to Improve Private Early Education*, FSG found that a majority of low-fee school owners are entrepreneurs who do not necessarily have any prior experience of working in the education field, and their primary motivation for starting the school was financial gain as low-fee private schools have low costs and are a profitable business due to the high demand from parents. The education-

alists, on the other hand, are a minority among low-fee private school owners and their primary motivation for starting the school was to offer good quality education to children from low-income households at affordable costs (FSG, 2015b, p. 12, 28).

Quality of Education in low-fee private schools in India

Most studies that have compared student-learning performance in government schools and private schools across India show a ‘private school premium’ even after accounting for student effects. A range of econometric techniques have been applied to correct for possible biases: by controlling for observed background characteristics of children (e.g. Govinda and Varghese, 1993; Kingdon, 1996; Muralidharan & Kremer, 2006; Desai et al., 2008; Wadhwa, 2009; Goyal, 2009; Goyal & Pandey, 2009; French & Kingdon, 2010;); by using lagged test scores and community fixed effects (e.g. Singh and Sarkar, 2012); through household fixed effects (e.g. French and Kingdon, 2010); by running models with village fixed effects to isolate village level confounders; through propensity score matching (e.g. Chudgar and Quin, 2012); and through the use of Heckman selection models (e.g. Kingdon, 1996; Desai et al., 2008). Nevertheless, these studies only highlight relative performance—with low-fee private schools frequently being only marginally better than what are often poorly performing government schools. The learning levels in both government schools and low-fee private schools are worryingly low (ASER, 2010, 2011, 2012; Education Initiatives, 2006, 2010). In fact, using multivariate analysis on data of 7000 children from rural India and around 3000 children from urban India aged 8 to 11, balanced using the propensity score matching technique, Chudgar and Quin (2011) found that children in low-fee private schools may perform no better than their counterparts attending public schools in the same area. Mehrotra and Panchamukhi (2006) arrived at the same conclusion and summarized the poor quality of learning in both low-fee private schools and government schools across India by stating that while most of the low-fee private schools offer ‘a poor quality alternative to government schools,’ the situation in government schools ‘is much worse’ (p. 440).

In terms of ECE, the preprimary grades in most low-fee private schools appear to be a downward extension of the primary grades, with fixed seating and regimented environments (FSG, 2015b, p. 46). The student to teacher ratio is typically on the higher side with an average of 40:1, and the teachers are often untrained and without prior experience in ECE.

Most schools do not invest in any teaching or learning materials, and the teaching methods are predominantly rote-based and developmentally inappropriate (FSG, 2015b, p. 46). On assessing the school readiness of 6 year old children in low-fee private schools across India using the International Development and Learning Assessment (IDELA) tool by Save the Children, FSG (2016, p.9) found that 54 percent of the children had not developed number sense and could not pick out 12 sticks from a stack of 20. The literacy outcomes were worse with 78 percent of the children unable to read three simple 3-letter words in English, although these low-fee private schools were English medium schools. The premium of up to 10 percent of the disposable monthly income (FSG, 2015a) that parents from low-income households spend on private schools does not seem to result in any learning advantages.

Why focus on low-fee private schools in India?

Using available data from the Indian Readership Survey 2014 and the New Consumer Classification System (NCCS), FSG (2015, p. 10) estimated that 70 percent of the population across urban²² India is comprised of low-income households. FSG also found out that most of these households (86 percent) were sending their 3 to 6-year-old children to low-fee private schools. Given that a significant percentage of households in urban India are currently sending their children to low-fee private schools, it is imperative that further research is undertaken on these low-fee private schools in India with the objective of understanding what it would take to improve the quality of early childhood education in these schools because as noted earlier, the early years have a profound impact not only on the individual life outcomes of children but also on the future health and stability of the nation.

²² Cities with a population of one million or more.

3 Theoretical and conceptual frameworks

The first half of this chapter clarifies the researcher's theoretical framework as this 'basic set of beliefs guide' (Guba, 1990, p. 17) the researcher's methodological choices (Burrell & Morgan, 1979; Guba and Lincoln, 1994; Crotty, 1998; Creswell, 2007; Cohen et al., 2009). The second half of this chapter describes the three conceptual frameworks selected by the researcher to help frame the various theoretical propositions and also act as a guide in 'determining what data to collect and the strategies for analyzing the data' (Yin, 2009, p. 36).

3.1 Theoretical framework

Creswell (2014, p. 6) defines theoretical frameworks as 'a general philosophical orientation about the world and the nature of research that a researcher brings to a study.' This subsection explains this philosophical orientation of the researcher in the form of the following four key theoretical assumptions as identified by Burrell and Morgan (1979, p. 1-3): (1) ontology, (2) epistemology, (3) human nature, and (4) research methodology.

3.1.1 Ontological assumptions

According to Burrell and Morgan (1979, p. 1), 'ontology concerns the nature of the world that is investigated,' which in the context of this research is the social world, and based on the researchers' ontological beliefs, what can be studied and known about reality will greatly vary (Hudson & Ozanne, 1988; Guba & Lincoln, 1994; Crotty, 1998). Extant literature on ontology identifies two dominant and opposing ideas that propose that either reality only exists inside the cognition of the observer (nominalism) or that it exists independent of the observer (realism) (Cohen et al., 2009, p. 8). In other words, nominalism proposes that the social world is a mental model of the observer and does not have a reality of its own, while realism believes that social structures have an independent existence (Burrell and Morgan, 1979, p. 3-4). Aligning with the ontological position of nominalism, the researcher believes that reality is subjective, and it is constructed by human beings within specific historical and socio-cultural contexts. Therefore, social science research must be situated within its unique contexts and not generalized for the whole population (Creswell, 2007). Furthermore, the researcher also believes that a single phenomenon or social construct may have multiple

interpretations and meanings for different individuals rather than being a universal truth that can be determined by a process of measurement. Building on this ontological stance, the next sub-section explains the strong correlation between this ontological view and the researcher's epistemological assumptions (Guba and Lincoln, 1994, p. 108).

3.1.2 Epistemological assumptions

Epistemology is concerned with the nature and forms of knowledge: what constitutes 'true' knowledge about the world; in what form does it exist; how it can be acquired; and how it is communicated to other human beings, i.e., can knowledge be externalized and communicated as facts, or is it something that we personally experience? (Burrell and Morgan, 1979; Cohen et al., 2009). Epistemological assumptions broadly fall on a spectrum ranging from positivism to interpretivism (Onwuegbuzie and Leech, 2005). Positivists believe knowledge is objective, tangible, and absolute, and it can be understood and learned using empirical and quantitative methods commonly used in natural sciences (Crotty, 1998, p. 5-6). In contrast, interpretivists believe knowledge is subjective, situated, and socially constructed, and hence it cannot be gained by being an external observer of social activities (Hammersley, 2013, p. 26). Therefore, interpretivists often personally involve in the social world and seek to gain knowledge from 'the inside rather than the outside' (Burrell and Morgan, 1979, p. 5).

Given the researcher's ontological position of nominalism, his epistemology better aligns with the interpretivist assumptions on the epistemological spectrum. To elaborate, the researcher believes that social constructs (e.g., quality of ECE environment, school culture, motivations of teachers, and the concept of leadership) that this research aims to understand are socially constructed by individuals (in this case the teachers and school leaders at the case study school). Therefore, to understand these social constructs, the researcher not only needs to observe the actions and behaviors of these individuals, but also interact with them to understand the beliefs, values, and contexts that drive these actions and behaviors.

3.1.3 Assumptions about human nature

Burrell and Morgan (1979, p. 2) define human nature as ‘the relationship between people and their environment’ in terms of whether people or their environment determine what happens to people. On one extreme lies ‘determinism’ which is the belief that the environment or people’s situation controls what happens to them. On the other extreme lies ‘voluntarism’ which assumes that people are free-willed actors who are in total control of their destiny. Unlike, ontology and epistemology, Burrell and Morgan (1979, p. 6) do not feel strongly that researchers need to make a choice about their assumptions about human nature. Rather, they note that many social science researchers assume an intermediate position, which is the stance that the researcher has chosen for this study. To elaborate, the researcher believes that the individuals being studied (i.e., the teachers and the school leaders at the case study school) are free-willed actors but are also constrained by their situation and the environment in which they find themselves. For instance, while the school leaders are free to decide the salaries of teachers, the financial constraints of a low-fee private school limit the extent to which the school leaders can increase these salaries even if they wanted to.

3.1.4 Methodological choices

Hitchcock and Hughes (1995, p. 21) assert that ‘ontological assumptions engender epistemological assumptions, both of which then give rise to methodological considerations, which in turn lead to issues of instrumentation and data collection.’ Based on this logical link between the four assumptions discussed earlier, the researcher’s theoretical framework leads to a qualitative methodology that is best explored by a case study as it is impossible to separate the variables of the phenomenon (e.g., the motivations of teachers, engagement of school leaders in the teaching and learning processes, and school culture) from their context (Yin, 2009). Furthermore, since the research study aims to explain and describe human behavior with an emphasis on the differences and similarities of human beings, and the researcher has chosen to utilize multiple qualitative approaches such as observations, in-depth interviews, and review of relevant documents to build a rich pool of data which will help triangulate the findings and build a robust understanding of the various factors which seem to be influencing the quality of the ECE environment in the case study school.

3.2 Conceptual frameworks and research propositions

According to Yin (2009, p. 35), theory development is a vital and organic component of the design phase of a case study. He further notes that ‘the role of theory development, prior to the conduct of any data collection, is one point of difference between case studies and related methods such as ‘ethnography’ (e.g., Lincoln and Guba, 1985; Van Maanen, 1988) and ‘grounded theory’ (e.g., Corbin & Strauss, 2007) where the researchers deliberately avoid specifying any theoretical propositions at the outset of an inquiry.’ The following sub-sections describe the three conceptual frameworks that were selected to help develop this case study’s five theoretical propositions as well as the rival and null propositions.

3.2.1 Rowan’s teachers’ effectiveness model

The main frameworks on the effectiveness of workers stem from empirical research in sociology and in organizational and industrial psychology. Drawing on this body of literature, Rowan et al. (1997, p. 256) proposed that after controlling for relevant student and school characteristics, the effectiveness of teachers in the classroom—as measured by students’ achievement—is a complex function of three general classes of variables: (1) the capacities of the teachers (e.g., instructional skills and subject matter knowledge/ expertise); (2) the motivations and commitments of the teachers (measured in terms of teachers’ efficacy, outcome expectations, expectations of students, and locus of control); and (3) the characteristics of the settings in which the teachers work (e.g., the school climate and culture, and various classroom situations such as class size and support from an assistant teacher). Figure 5, provided in appendix 5, presents a visualization of this conceptual framework.

On testing the model on public-use data from the National Education Longitudinal Study (NELS) 88 first follow-up data files, Rowan et al. (1997) found that these three classes of variables have an additive effect on student achievement after controlling for a large number of student and school-level variables. The model also suggested a multiplicative effect of students’ ability on these three classes of variables in that the low-performing students benefitted the most from an increase in teachers’ abilities, teachers’ motivations, and better work situations for the teachers. This is particularly significant in the context of low-fee private

schools where parental support at home towards the child's learning is generally low and the student achievement levels are overall quite poor (FSG, 2015a, 2016).

Building on this framework, this study proposes that,

P1: the preprimary teachers in the case study school are highly motivated and are more capable (understand the basic principles for ECE and are aware of developmentally appropriate pedagogy for early years)

P2: the work situation at the case study school is better than that in the average low-fee private school (viz. workload, support from school leadership, remuneration, etc.)

In addition to these three classes of variables, Leithwood et al. (2004) also draw attention to the influence of the external environment (e.g., shifting government policies and other demands such as parents' demands) on teachers' effectiveness in their study on student learning outcomes. However, government policies do not have a huge impact on the functioning of teachers in low-fee private schools because as discussed earlier in the section on 'low-fee private schools in India,' most of these schools are unrecognized schools which operate under the government radar. In terms of parents' demands, FSG's research on parent behavior (FSG, 2015a, p. 231-232) shows that most parents do not actively engage with the school.

Building on these premises, this research study also proposes that,

P3: the external environment does not have any significant impact on the effectiveness of the preprimary teachers in the case study school

3.2.2 Hallinger's 'leadership for learning' model

Besides the teachers, there is a large body of research that shows that the school leaders also hold the potential to significantly impact student achievement in a school (e.g., Bell et al., 2003; Leithwood et al., 2004, 2006; Marzano et al., 2005; Witziers et al., 2003; DCSF, 2007; Leithwood & Mascall, 2008; Southworth, 2002; Robinson et al., 2008; Mulford & Silins, 2003, 2009; Leithwood & Levin, 2010; Heck & Hallinger, 2009; Hallinger & Heck, 1996a&b, 2010; Day et al., 2010; Cheng, 1994). While qualitative research studies on school

effectiveness (Edmonds, 1979; Maden, 2001; Scheurich, 1998) have documented the conviction that school leaders make a huge difference to the quality of learning by impacting the quality of teaching in the school, more recent quantitative studies (Hallinger & Heck, 1998; Marzano et al., 2005; Witziers et al., 2003) have also attempted to measure the actual impact of school leaders on improved learning outcomes. For instance, in their meta-analysis of 70 empirical studies in the United States evidence, Marzano et al. (2005) found a moderately strong effect (a correlation of approximately 0.25) of school leadership on student achievement. In light of the above literature, a suitable school leadership framework was sought to help study the phenomena of leadership at the case study school. However, the existence of multiple competing school leadership frameworks and the lack of contextual sensitivity made selecting a suitable framework for this research study challenging.

Multiple competing school leadership frameworks

On the first point, various researchers have proposed competing school leadership frameworks such as *transformational leadership* (e.g. Leithwood, 1994; Leithwood & Jantzi, 1999, 2000; Silins, 1994), *instructional leadership* (e.g. Hallinger, 2010; Hallinger et al., 1996; Heck et al., 1990; Kleine-Kracht, 1993; Leitner, 1994; Wiley, 2001), *distributed leadership* (e.g. Gronn, 2003; Spillane, 2006), and *shared leadership* (e.g. Barth, 1990; Hallinger & Heck, 2010; Heck & Hallinger, 2009; Marks and Printy, 2003; Pounder et al., 1995). While all of these leadership frameworks have some common elements that are applicable in the context of low-fee private schools in India (e.g., focus on the professional development of teachers, monitoring of classroom teaching, and setting the vision and goals for the school), they also have some fundamental differences (e.g., focus on transformation versus focus on improvement on standardized tests) which made them incompatible.

Lack of contextual sensitivity in most leadership frameworks

On the second point, stressing the importance of context when looking at leadership theories, Clarke and O'Donoghue, (2017, p. 167) note that 'the amount of empirical research on leadership of educational organizations, and especially of schools, which has stressed the importance of being sensitive to context, is not great.' Unfortunately, much of the existing empirical literature on school leadership originates from the United States and other OECD

countries, and due to the stark differences in contexts, many of the elements of the mainstream school leadership frameworks are not sensitive to the Indian context. For example, while Marzano's (2005) school leadership model relies heavily on robust student achievement data to inform the decisions and actions of the school leader; the use of such data on student achievement is virtually non-existent in the context of low-fee private schools in India due to situational challenges such as poor logistics (e.g., large class sizes and understaffed schools resulting in high workload for teachers and school leaders) and technological challenges (e.g., lack of technological infrastructure to capture, store, and process data, and poor technical expertise in the school staff to collect and work on digitized data).

Reasons for selecting Hallinger's leadership for learning framework

In spite of the above two challenges, after going through all the mainstream leadership models, Hallinger's (2011) 'leadership for learning' framework (as depicted in figure 6, presented in appendix 6) was selected as the most suitable conceptual framework for this research study for three key reasons: firstly, the framework has come to subsume features of instructional leadership, transformational leadership, and shared leadership (Hallinger, 2003; Heck and Hallinger, 2009; MacBeath and Cheng, 2008; Marks and Printy, 2003; Mulford and Silins, 2009); secondly, the framework acknowledges the importance of linking leadership to its context; and thirdly, the framework's four leadership dimensions (values leadership, leadership focus, context for leadership, and sources of leadership) can be superimposed on Rowan's teacher effectiveness framework to explain how school leaders can affect teachers' effectiveness in the classroom, and thus impact student achievement.

Building on Hallinger's four leadership dimensions, the research study proposes that,

P4: the school leaders influence the preprimary teachers' effectiveness by (i) creating efficient academic structures and processes (improving work situation); (ii) supporting teachers through regular training, monitoring, and feedback (improving teachers' abilities); (ii) building a shared vision and setting clear goals (motivating teachers)

3.2.3 Distributed leadership model

The fourth dimension of Hallinger's (2011, p. 136) 'leadership for learning model' proposes that there may be multiple sources of leadership in an effective school, with different leaders

carrying out specific functions that the school leadership must carry out in order to positively impact the student learning outcomes. Commenting on this, Lashway (2003, p. 1) notes that ‘the common ideal of a heroic leader is obsolete [...] the task of transforming schools is too complex for one person to accomplish single-handedly.’ Similarly, Woods (2005) and Hartley (2007) suggest that the ‘distributed leadership model emerged as an alternative to the charismatic leadership in which super-talented leaders single-handedly persuaded, inspired, or directed followers towards achieving their organizational goals.’

Today, there is a growing body of researchers (Gronn, 2002; Goleman, 2002; Bush & Glover, 2003; Lashway 2003; Harris, 2004; Hartley, 2007; Leithwood, Mascal, Strauss, Sacks, Memon & Yashkina, 2007; WaiYan Wan, Hau-Fai Law & Chan, 2017) who advocate a distributed leadership model where various leadership functions such as decision-making processes, developing teachers, and monitoring and evaluating teachers’ performance (Spillane, 2005; Hulpia, Devos & Rosseel, 2009) are distributed among various school staff, either formally or informally (Spillane, Halverson and Diamond, 2004; Torrance, 2013). Furthermore, there is also a growing body of research evidence that shows a positive impact of distributed leadership on (i) teachers’ morale, confidence, expectations, professional development, and job satisfaction (Court, 2003a&b; Hulpia & Devos, 2009); (ii) school effectiveness and improvement (Harris, Muijs & Crawford, 2003; Harris et al., 2007; Silins & Mulford, 2004); (iii) overall transformation in schools (Harris et al., 2007).

Building on the fact that the case study school has good quality ECE environment despite facing the same challenges as other low-fee private schools, the study proposes that,

P5: leadership in the case study school does not reside in a single school leader’s characteristic, skill, or knowledge (Spillane, 2005; Spillane et al., 2004), but instead it is distributed among various staff members, formally and informally

It is important to note here that although ‘scholars and practitioners often use the terms distributed leadership and democratic leadership interchangeably’ (Spillane and Sherer, 2004, p. 1), distributed leadership is a leadership model as explained earlier, while democratic leadership is a leadership style which ‘entails rights to meaningful participation and respect for and expectations toward everyone as ethical beings’ (Woods, 2004, p. 5).

3.2.4 Rival and null propositions

As Yin (2009, p. 134) mentions, if the researcher is aware of any potential rival proposition which could possibly explain the phenomenon being studied, the researcher must attempt to collect data on these possible ‘other influences.’ Based on the researchers work on the *Program to Improve Private Early Education* by FSG (as explained in chapter 1), the following rival proposition was framed to study the impact of an education intervention on the quality of the ECE environment in the preprimary grades at the case study school.

RP1: The quality of the preprimary grades is driven largely by an education intervention partner and not by motivated teachers and/ or strong school leaders

Additionally, a null hypothesis was also framed to account for chance circumstances resulting in the good quality of the ECE environment in the preprimary grades at the case study school on the day of the classroom observations by the researcher.

RP2: The Null Hypothesis – There are no clear drivers which explain the good quality of the preprimary grades in the case study school, and the good quality observed by the researcher could be due to chance circumstances on the day of the visit.

4 Research Methodology: the case study

Yin (2009, p. 3) starts his book *‘Case Study Research: Design and Methods’* by noting that ‘using case studies for research purposes remains one of the most challenging of all social science endeavors.’ Nevertheless, after considering the various methods of doing social science research, including but not limited to ethnography and surveys, the case study method was selected for this study as it met the three relevant situations that Yin (2009, p. 13) proposes are critical for selecting the case study method: (1) it was best suited to answer the primary research question which explored ‘*how*’ the case study school was working to achieve good quality ECE environment in its preprimary grades; (2) the researcher had little control over events in the school which led to the good quality ECE environment; and (3) the focus of the research was on a contemporary phenomenon within real-life context—the quality of the ECE environment in the preprimary grades of the case study school.

This chapter describes the research methodology used in this study and begins with an overview of the type of case study used. The second section of this chapter then describes the process followed for selecting the right case for this study while the third section documents the field procedures followed, including the various tools used and data sets collected as well as relevant information about the key informants interviewed. The final section highlights the key measures taken to ensure the validity of this study and it is hoped that the rigorous documentation as captured in this entire chapter lends to the reliability of the study.

4.1 Defining the case study type used in this research study

According to Yin (2009, p. 13), ‘a case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.’ Along with Yin’s broad definition of the case study method, the researcher also made use of the various case study dimensions proposed by Scholz and Tietje (2002, p. 10) as given in table 1 below to further define and classify the type of case study used in this research study.

Table 1. Scholz and Tietje's dimensions for classifying case studies

<i>Dimension</i>	<i>Classification</i>	<i>Selected type</i>
Design	Holistic or embedded	Embedded
	Single case or multiple case	Single case
Motivation	Intrinsic or instrumental	Intrinsic
Epistemological status	Exploratory, descriptive, or explanatory	Explanatory
Purpose	Research, teaching, or action/ application	Research
Data	Quantitative or qualitative	Qualitative
Format	Highly structured, short vignettes	Not applicable
	Unstructured or groundbreaking	
Synthesis	Informal, empathic, or intuitive	Informal
	Formative or method-driven	Formative

Given the limitations of the researcher in terms of time and resources available to carry out the study, a single case was selected for this research with the aim of testing specific theories with a clear set of propositions (Yin, 2009, p. 21). Furthermore, since there were multiple stakeholders or actors who were capable of influencing the quality of the ECE environment in the preprimary grades of the case study school, an embedded approach was followed where the preprimary teachers and the school leadership were identified as the two sub-units for this study. Additionally, as the research question aimed to understand in its entirety how the various stakeholders worked to achieve good quality ECE environment in the preprimary grades of the case study school, an intrinsic case study method was followed (Stake, 1995). In terms of the epistemological status, this case study was explanatory as it made use of various conceptual frameworks and theoretical propositions to explain how the case study school worked to achieve good quality ECE environment in its preprimary grades. The research objective of this case study as established earlier is to fulfill the research requirements for the master's degree in education at the University of Oulu, Finland. The use of qualitative data in the form of in-depth interviews and classroom observation notes, as well as relevant documents, clarifies the qualitative nature of this case study. Finally, the narrative nature of this research report explains the informal and mostly intuitive synthesis used in this study,

while the global statements and conclusions explain the formative synthesis process followed in this study. The dimension of format was not applicable in this study as this dimension mainly applies to written case studies used for the purpose of teaching.

4.2 Selection of the case study school

The following process was followed for the selection of the case for this research study. First, a set of selection criteria were identified during the literature review on low-fee private schools. Next, these criteria were prioritized so that the selection process would resemble a funnel where different filters (selection criteria) would be applied to the pool of available cases, leading to a shortlist of cases meeting all the criteria. In order to develop a long list of cases, the researcher reached out to relevant contacts working in the ECE space and/ or with low-fee private schools in India. Starting from an initial list of 9 potential cases, the researcher ultimately selected Infant Jesus Matriculation Higher Secondary School (IJMHSS), located in Kalpakkam, in Chennai, Tamil Nadu. The following section briefly describes the selection criteria used and also attempts to justify the final selection of IJMHSS.

Should be located in or around one of the six PIPE's pilot cities

At the time of conducting this research study, the researcher was working full-time on the *Program to Improve Private Early Education* by FSG, India, and as part of his role in PIPE he traveled regularly to the following six cities across India: Chennai, Delhi, Mumbai, Bangalore, Mysore, and Hyderabad, where PIPE was researching the implementation of its partners' ECE products in low-fee private schools. Hence, preference was given to schools located in and/ or around these six cities for practical and logistical reasons as the visits to the case study school could be scheduled on days before or after research visits for PIPE.

Infant Jesus Matriculation Higher Secondary School is located in Kalpakkam, a suburb on the outskirts of the city of Chennai, Tamil Nadu in the southeast of India.

Should be a typical low-fee private school

A. Fee charged

Based on research conducted by PIPE (FSG, 2015b, p.6), the all-inclusive monthly cost to parents in low-fee private schools ranges from INR 450 to INR 1,500 per month (roughly \$6 to \$20²³). This includes the monthly tuition fee plus the annual cost of books and uniforms, admission/ readmission fee and other miscellaneous expenses such as library fee (divided by 12 to arrive at the cost per child per month). A sector-analysis of low-fee private schools by Gray Matters India (2012) puts the monthly tuition fee between INR 250 and INR 1000. When the cost of books (~INR 2,000), uniforms (~INR 2,000), and admission/ readmission fee (~INR 3,000 to INR 5,000) are added, the all-inclusive fee comes up to about the same as FSG's calculation. Therefore, PIPE's inflation-adjusted upper limit of INR 1650 (~\$24) as a monthly fee in the academic year 2018-19 was used for selecting the case.

Infant Jesus Matriculation Higher Secondary School was charging an all-inclusive monthly fee of INR 1,258 for the lower kindergartner and INR 1,538 for the upper kindergarten in the academic year 2018-19 (the fee card of the school is attached in appendix 7).

B. Ownership structure

Most low-fee private schools are privately owned by an individual who runs the school as a profit-making venture. However, the sector also has low-fee private schools which are run by charitable and/ or religious non-government organizations. The key differences in both these types of low-fee private schools are access to funds and school leadership structure. A charitable low-fee private school is run by a trust or a society which can raise funds through grants and donations. Such schools often have all the amenities of mid-market private schools such as good infrastructure (large classrooms, a playground, adequate toilets, etc.) and qualified teachers as they can pay higher salaries. However, these schools charge a fee that is comparable to low-fee private schools as the fees are heavily subsidized by the grants and donations raised by the managing trustees or members of the society. In contrast, typical low-fee private schools that are run by individual owners have limited infrastructure (e.g.,

²³ Using the 1 INR = 0.014 USD conversion rate.

small classrooms, no playgrounds, fewer toilets, etc.), employ unqualified teachers due to lower pay scales offered, and depend primarily on the fee collected from parents to operate. Also, in terms of school leadership structure, charitable low-fee private schools are managed by a board of trustees or members who appoint a qualified principal to run the operations at the school. In contrast, in a low-fee private school that is run by an individual, the owner often doubles up as the principal or appoints a close family member as the principal. For this research study, the low-fee private school run by an individual was chosen as the subject of study because it is the more prevalent type of low-fee private school operating in India, and hence the findings of this study may potentially be relevant to a larger audience.

Infant Jesus Matriculation Higher Secondary School is owned by an individual who doubles up as the school's correspondent while his wife runs the school as its principal.

Should have good quality ECE (as measured by the TECERS tool)

Once a short-list of potential (typical) low-fee private schools was created based on the first two criteria, the next filter that was applied to the list was that the school should have good quality ECE in the preprimary grades. A standardized evaluation tool—the Tamil Nadu Early Childhood Environment Rating Scale (TECERS) (Isely, 2001)—was used to measure the quality of ECE environment in the preprimary grades. The maximum normalized score that a classroom can get is 100 and according to the Quality Matters study (MS Swaminathan Foundation, 2001) which validated the tool on a sample of 48 ECE classrooms in both government and low-fee private schools in Chennai, India, a classroom with good quality ECE environment would score in the range of 75 to 90. Hence, a quality threshold of a score of 75 on the TECERS tool was used to further filter the potential case study schools.

The four preprimary classrooms in **Infant Jesus Matriculation Higher Secondary School** scored an average of 79.24/100 on the TECERS tool (detailed scores are presented in chapter 5), indicating a good quality ECE environment in the school's preprimary grades.

Should be willing to participate in the research study

The final filter which was applied to the schools which met all the above criteria was the willingness of the school to participate in the research study. The school owners and/ or leadership were informed about the scope and purpose of the study as well as the research

activities which would be carried out at the school as well as the implications in terms of time required of each stakeholder for the qualitative interviews. The shortlisted schools were then prioritized based on the willingness of the schools to participate in the research study.

Infant Jesus Matriculation Higher Secondary School's leadership understood the purpose and objectives of the research and was happy to grant access to the researcher to carry out this case study research, provided the school would be given a copy of the thesis. Before starting the research, written permission to carry out the research study at the school was obtained from the school owners (see appendix 8 for a sample permission letter).

4.3 Types of data collected, tools used, and processes followed

As Yin (2009, p. 13) mentions, case studies often call for the triangulation of multiple sources of evidence due to the richness of the phenomenon and the extensiveness of the real-life context, both of which may result in more variables of interest than data points. Hence, this research study has relied on three distinct sources of data as briefly described below.

4.3.1 Classroom observations using the TECERS tool

The researcher invited a co-researcher to participate in the classrooms observations to establish inter-rater reliability. In preparation for the visit to the case study school, the researcher walked the co-researcher through the TECERS tool item by item and aligned on the scoring of each time. Then, the researcher and the fellow researcher conducted a mock observation in a preprimary classroom in another low-fee private school, followed by a detailed discussion to check inter-rater reliability on the TECERS scores for the classroom. Furthermore, explicitly permission was taken from the school leaders as well as the teachers in the case study school before inviting the co-researcher for the classroom observations. Also, care was taken to ensure that the presence of two observers in the classrooms did not affect the performance of the teachers. The researchers first met with the teachers and built rapport with before entering their classrooms, and in the classrooms, the researchers sat at the back of the classrooms in a corner out of the direct line of sight of the children and the teachers.

Four preprimary classrooms (2 junior kindergarten and 2 senior kindergarten classrooms) in the preprimary section of the case study school were observed over the course of a normal

working day from 9 AM to 4:30 PM in early October. The researcher and co-researcher spent between 1 hour and 2 hours in each of the four preprimary classrooms observing the teaching and learning processes and independently scored the ECE environment on a printout of the TECERS tool. Each classroom was scored on a separate copy of the tool. The researchers also observed the interactions between the teachers and children during the lunch break and accordingly scored the meal time-related items on the TECERS. Throughout the visit, the researcher also took down more detailed observation notes which were promptly digitized and later used in describing the TECERS scores of the case study school in this report. Post the classroom observations, the researcher had individual, informal conversations with all the four preprimary teachers and the assistant school leader to clarify data points in order to score certain items on the TECERS tool. For instance, the researcher asked the teachers how often they organized art and craft as well as outdoor gross motor activities.

At the end of the visit, the researcher and co-researcher spent an hour debriefing and comparing TECERS scores. Overall, less than 1 percent variation (measured in terms of the total deviation in scores to the total scores rated similarly) was observed in the scores of the researcher and the co-researcher. Moreover, as there was hardly any variance in the scores of the four preprimary classrooms, an average score for the four classrooms was taken to represent the overall quality of the ECE environment in the preprimary grades.

Overview of the Tamil Nadu Early Childhood Environment Rating Scale

The Tamil Nadu Early Childhood Environment Rating Scale (TECERS) was created to address the cultural challenges arising in the use of the original Early Childhood Environment Rating Scale (ECERS) by Harms and Clifford (1980) in the Indian context. As Isely (2001, p. 5) notes, ‘The ECERS reflects two cultures and their unique meanings and assumptions, and some of those meanings or assumptions may not be appropriate in the Indian preschool setting.’ She goes on to mention that both the US culture as well as the professional academic culture of ECE, which hugely influenced the ECERS, are vastly different from the Indian culture and therefore it was ‘necessary to create a tool that would communicate as much as possible the identical meaning to all users in the Indian setting.’ Isely (2000) also points to another drawback in the original ECERS which prompted the adaptation of the ECERS for use in the Indian context: the presence of many not mutually exclusive dimensions in the

ECERS. For example, in item 3 on ‘nap and rest’ in the original ECERS tool available at the time of the adaptation (Harms & Clifford, 1980, pp.13), the first and lowest category included three different dimensions: timing, location, and supervision. The examples in the tool to clarify these dimensions further added at least four more dimensions: length of nap, regularity, noise, and ventilation. As one goes up on the 7-point scale more dimensions are added: relaxation, flexibility, and space. Thus, the seven-point item was being measured on 10 dimensions. While subsequent revisions of the ECERS tool have addressed many of the issues raised by Isely (2001), a recent analysis of the latest ECERS-R tool (Cryer, Harms, & Riley, 2003) by Gordon et al. (2013), using the multidimensional Rasch Partial Credit Model (PCM) and regression analyses with data from the Early Childhood Longitudinal Study-Birth Cohort sample from the US, raised questions of category disordering as well as issues with the ECERS-R’s six subscales’ structural validity and criterion validity.

The TECERS mitigates some of these issues by separating each dimension into a discreet item. While the ECERS-R contains 36 items measured on more than 100 different dimensions, the TECERS contains 60 items, most of which are measured on only one dimension. Moreover, Isely (2001, appendix 3, p. 2) notes that ‘the number of dimensions present in the ECERS was cut by selecting only those that were most important to children’s learning and appropriate to the ECE settings found most often in Tamil Nadu.’ Additionally, a few dimensions that were not present in the ECERS were added in the TECERS, particularly in the area of social and emotional development. Additionally, unlike the original ECERS, the TECERS also contains embedded unambiguous operational definitions for each item, reducing the reliance on training instructions to clarify crucial definitions. Later versions of the ECERS have followed a similar approach in clarifying crucial definitions in the tool.

With the exception of a few items which are scored from 0 to 6, most of the items on the TECERS are scored from 0 to 2. The items scored from 0 to 6 are further divided by 3 to normalize the scores to a scale of 0-2. Once a classroom has been scored on all items, the scores for each of the seven domains are converted to percentages by adding the observed points and dividing that by the total number of points possible for that component. The overall score for the ECE environment is calculated by adding the percentage scores of the seven domains and then dividing the total by the number of domains, i.e., by seven.

4.3.2 Semi-structured in-depth interviews using interview protocols

The researcher interviewed each of the four preprimary teachers responsible for the teaching and learning in the four preprimary classrooms as well as four school leaders who had a role, either directly or indirectly, in the functioning of the preprimary grades. Each of these eight informants was given a code name as described below in order to protect their identity as was promised in the informed consent forms signed between the researcher and the interviewees (see appendices 9 and 10 for sample consent forms signed by the interviewees).

Table 2. List of interviewees (names coded) included in this study

<i>Code name</i>	<i>Role in school</i>	<i>Gender</i>	<i>Age</i>
Junior KG teacher _1	Handles one of the junior kindergarten classes	Female	26
Junior KG teacher _2	Handles the other junior kindergarten classes	Female	24
Senior KG teacher _1	Handles one of the senior kindergarten classes	Female	30
Senior KG teacher _2	Handles the other senior kindergarten classes	Female	32
Assistant school leader	Responsible for the academics of primary grades	Male	23
Preprimary coordinator	Responsible for the academics of the preprimary grades	Female	32
Principal	Responsible for the administration and management of the entire school	Female	50
Correspondent	Responsible for external relationships of the school (e.g. with government officials, education service providers, owners of other schools)	Male	57

Interview protocols

Using Rowan's teachers' effectiveness framework as described in chapter 3, the researcher formulated the following broad areas of inquiry for the teachers' interviews: (1) knowledge about ECE, including developmentally appropriate pedagogy and curriculum; (2) motivation of teachers, including intrinsic and extrinsic motivations; and (3) workplace environment, including school culture and classroom climate. Similarly, using Hallinger's leadership for learning framework as described in chapter 3, the researcher formulated the following broad areas of inquiry for the school leaders' interviews: their vision and goals for the school and

for the preprimary grades, knowledge about ECE, teacher recruitment and training practices, school culture, personal beliefs and values, context of the school, and leadership skills.

These areas of inquiry were then converted into two separate interview protocols with open-ended questions to guide the interviews (see appendices 12 and 13). Two rounds of mock interviews with preprimary teachers and school leaders from other low-fee private schools were conducted using these interview protocols, and the protocols were tweaked after each round based on insights from the mock interviews. For instance, technical terminology was replaced with simple phrases that explained these terms (e.g., ‘pedagogy’ was replaced with ‘how you should teach’) and question on personal opinions were moved to the end of the protocol as these questions seemed to make the interviewees uncomfortable and this, in turn, affected the interview questions that followed. Explicit feedback was sought from the mock interviewees to help to improve the flow of the interviews and refine questions that they found difficult to understand. The interview protocols were also further tweaked during the research process as the interviews were conducted sequentially with ample time budgeted between interviews to complete the transcription of the previous interview.

Given that some of the preprimary teachers were not proficient in English, the researcher engaged a professional translator and researcher to translate the interview protocols to Tamil (the vernacular language spoken in the Indian state of Tamil Nadu). The translator was first taken over each protocol, question by question, where the researcher explained the rationale behind each question. Then, the translator created a Tamil version of each protocol capturing the essence of each question and not necessarily literally translating each question from English to Tamil. As a precautionary measure, the researcher asked a friend who was proficient in Tamil and English to translate the Tamil versions back to English to check for the fidelity of the translations. No loss of meaning was found in the translations. Although the researcher understood basic Tamil, his proficiency level was not sufficient for conducting in-depth interviews. Hence, the same translator was invited to join all the interviews on a conference call to ensure that the interviewees had the option of responding in Tamil if required.

Conducting the in-depth semi-structured interviews

In total, eight in-depth, semi-structured qualitative interviews were conducted by the researcher. The interviews were conducted on a phone call in the ensuing weeks following the visit to the school by the researcher. The interviews were recorded with prior permission and the digital files were stored on an encrypted drive accessible only to the researcher. Each audio file's name contained the name of the interviewee and the date of the interview while other pertinent details such as the coded name of the interviewee and the duration of the interview (Miles and Huberman, 1994) were added to the transcriptions. Interviews with the teachers and the school leaders were conducted alternatively and each audio recording was transcribed before the next interview. This helped the researcher identify areas that needed to be explored further in subsequent interviews. For instance, after the first school leader interview, it emerged that the school's informal teacher training model played a key role in building capacity in the teachers, and hence this topic was explored in subsequent interviews.

Acknowledging the risk of the 'Hawthorne effect,' (Levitt & List, 2011) the researcher took the following measures to alleviate the risks: (1) the researcher chose not to share the areas of inquiry or the interview protocols with the participants before the interviews; and (2) the researcher met with each of the teachers after the classroom observations and explained the purpose of the interviews and also built rapport with the teachers as the interviews were conducted later via telephone due to travel constraints (the case study school is located in the city of Chennai in the south of India, while the researcher resided in the city of Mumbai in the northwest of India). The availability of the translator during the interviews also played a role in putting the participants at ease as they were encouraged to respond in whichever language they felt most comfortable in. Additionally, many of the questions were intentionally framed with the starting phrase 'According to you...' in order to reinforce that the researcher was only interested in their genuine beliefs and opinions and not in what they thought was the right response or what the researcher thought was the right response.

Transcription of interviews

Each audio recording was listened to multiple times to ensure that an accurate version was transcribed. The interviews were transcribed verbatim as far as possible and certain instances

where the words or phrases uttered by the interviewees were unclear were noted in the transcripts in brackets. Subtle nuances like sighs, pauses, and fillers were intentionally left out as the interviews were conducted over the telephone and without the accompanying facial expressions the auditory clues may have been difficult to accurately interpret. From a data quality perspective, these subtle and implicit messages were not critical because the research questions of this study did not necessitate the analysis of the use of language or monitoring of psychological responses, or the length of pauses (Psathas, 1995). For the four interviews conducted in Tamil, the researcher and the translator first listened to the audio recordings together and arrived at a common understanding of the responses in Tamil. These responses were then translated to English to capture the essence of the responses and not necessarily the literal translations. Finally, the researcher transcribed the translated responses in English.

Additionally, as recommended by McCormack (2000a, 200b), a memo file was maintained while transcribing the interviews with the dual objective of not only identifying additional or follow-up questions for subsequent interviews but to also identify themes and concepts that could be revisited during the final data analysis and write-up of the report.

Coding the transcriptions

Although established conceptual frameworks were used in the design of the interview protocols, a grounded approach was consciously used for coding the transcripts as an early reading of the transcripts indicated the presence of themes and concepts which may not be adequately captured by these conceptual frameworks. Following the procedure laid out by Rubin and Rubin (2012), important and recurrent themes, concepts, events, and topical markers which emerged from the interviews were labeled with a word or phrase that precisely captured the concept or theme being communicated in that phrase, paragraph, or response. As far as possible, the same labels were used in all the transcriptions and a master Microsoft (MS) Excel spreadsheet was maintained to keep track of all the labels. Overall, 257 unique labels were created in the process of coding all the transcripts.

The following excerpt is an illustration of a label used to code an excerpt. The label—**\$challenges faced by schools\$**—was inserted in parenthesis at the end of the statement. The ‘\$’ sign was used to bracket the label so that only labels, and not the text from the transcripts, would be identified when using the ‘find’ function in MS Word.

“So parents usually pay the fee only during exams, like quarterly, half-yearly or annual [exams]. Otherwise that is actually a big challenge here... actually a very big challenge.” (**Challenges faced by school**)

After completing the coding of all the transcripts using precise and appropriate labels, the master MS Excel spreadsheet containing all the codes was analyzed to create a coding structure, which in turn revealed seven recurrent themes (with multiple sub-themes). Table 3 in appendix 14 illustrates one of the themes with its respective labels and sub-theme.

Sorting the data in the transcripts

In the next step, the data was sorted by grouping all the data units under the same theme and sub-theme into separate MS Word documents. Yin (2009) calls this process as ‘editing of the information’ in which similar information from different transcripts is collated and organized into separate theme-based documents for easy access for analysis. Overall, seven MS Word documents were created for the seven themes and each document further had multiple sub-sections for the various sub-themes. These documents were then read multiple times to understand how these themes were seen from the various interviewees’ perspectives. The themes were also further examined for nuances, i.e., the subtle differences in the way the interviewees framed their responses, and the systematic similarities and differences between groups of interviewees on the same theme (Rubin & Rubin, 2012).

4.3.3 Document analysis: retrieval and storage

Although not many documents were available due to the low priority given to documentation at the case study school, the researcher also reviewed the documents listed in Table 4 below as part of this study. Key documents that the researcher would have liked to review but were not available were: minutes from staff meetings, teacher training materials such as handouts and training plans, and reports from visits to other schools for professional development.

Table 4. List of documents reviewed in this study

#	Document type	Content
1	Webpages from the school's website	History of the school; vision and mission of the school; annual school fees for all grades, blog posts, newsletter
2	Lesson plans by Xseed	Detailed lesson plans for preprimary grades (printed)
3	Lesson plans prepared by preprimary teachers	Implemented lessons plans for preprimary grades (handwritten)

Digital images of lesson plans by Xseed as well as by the teachers

After taking permission of the teachers and the school leaders, the researcher took photographs of the teachers' guide prepared by the education intervention company Xseed Education. Photographs of math and English lesson plans for both junior kindergarten and senior kindergarten were taken for the entire week in October when the classroom observations took place as this would help understand the impact of the educational intervention on the quality of ECE environment if any. Additionally, the handwritten lesson plans prepared by the teachers for the same week were also photographed with prior permission to help compare the lesson plans by Xseed Education with the teacher-prepared lesson plans. These photographs were stored on an encrypted drive accessible only to the researcher.

Offline copies of various relevant webpages from the school's website

The school's official website was visited and various pages (e.g., About Us, Fee, and Newsletter) were saved as offline versions for use during the review of documents. Updated webpages, specifically the 'Events' page, were retrieved at the time of the document review.

4.4 Validity and reliability of the research study

The quality of a research study is judged in terms of its validity and reliability (Yin, 2009, p. 32-33). Therefore, the researcher undertook various measures throughout the research study to ensure that it met the four quality tests that are common to all social science methods (Kidder & Judd, 1986, p. 26-29): construct validity, internal validity, external validity, and reliability. The following sub-sections explain these various measures and also attempt to justify that this research study meets the high standards of quality expected of any researcher.

4.4.1 Construct validity

The following measures were taken to ensure construct validity in the study. First, the unit of analysis, i.e., the case—a typical low-fee private school, was explicitly identified and clarified using established parameters from extant literature, and a set of selection criteria were defined for selecting the right case for this study as explained earlier in this chapter. Secondly, the key concepts explored in this study were mapped to established operational measures available in extant literature to ensure construct validity. For instance, the concept of quality of ECE environment, which is central to this study, was measured using a suitable validated and standardized tool: the Tamil Nadu Early Childhood Environment Rating Scale. Similarly, established frameworks—Rowan’s teachers’ effectiveness framework (1997) and Hallinger’s ‘leadership for learning framework’ (2011)—were used to define and operationalize the concepts of teacher effectiveness and school leadership. Thirdly, the researcher made use of multiple sources of evidence in the form of classroom observations, in-depth qualitative interviews, and document review in order to achieve convergent lines of inquiry, i.e., triangulation of findings (Yin, 2009, p. 34). Fourthly, following Yin’s (2009, p. 34) recommendation of a chain of evidence, the researcher maintained a digital database of all the collected data on an encrypted drive to which only he had access. Lastly, one of the key informants (the assistant school leader) was asked to review the draft case study report and verify that the report accurately represented the constructs being studied.

4.4.2 Internal validity

One of the key steps taken to ensure the internal validity of the study was to create interview protocols with open-ended questions aligned to the main and secondary research questions. Additionally, following Creswell and Miller’s (2000) and Patton’s (1980) recommendation, the researcher began transcribing the interviews while conducting other interviews in order to return to the data ‘over and over again to see if the constructs, categories, explanations, and interpretations make sense.’ Apart from this, as Yin (2009, p. 130) notes, ‘the first and most preferred strategy is to follow the theoretical propositions that led to your case study.’ Therefore, the researcher made use of established conceptual frameworks as discussed in chapter 3 to create the objectives and design of the case study, as well as the research questions and research propositions. The various research propositions, in turn, shaped the data

collection plan, including the broad areas of inquiry in the interview protocols. Moreover, rather than arbitrarily deciding how long to remain in the field, which can impact the validity of the study (Creswell and Miller, 2000), the researcher followed the recommendation for the use of the TECERS (Isely, 2001) and spent a total of 8 hours in the preprimary section of the case study school to measure the quality of the ECE environment.

4.4.3 External validity

The external validity of a study ‘deals with the problem of knowing whether a study’s findings are generalizable beyond the immediate case study’ (Yin, 2009, p. 35; Merriam, 2009). While the case study is not statistically generalizable like survey research, this type of research (as with experiments in natural sciences) is analytically generalizable. The findings of this study indicate that a combination of motivated teachers, strong school leadership, and positive school culture in terms of freedom, flexibility, and appreciation may lead to improved classroom environments at least in the preprimary grades. Analytically, these specific findings fit into the broader framework of Rowan’s teachers’ effectiveness model. Moreover, these findings could further help identify other low-fee private schools which are likely to have good quality ECE environment. However, this study will not be able to prove causality as this would require using the replication logic that ‘underlies the use of experiments,’ i.e., the testing of the theory by replicating the findings in other low-fee private schools where the theory specifies that the same results should occur (Yin, 2009, p. 36).

4.4.4 Reliability of the research

This chapter comprehensively documents the methodology followed in this case study, and it is hoped that if another investigator used the tools described in this chapter and followed the same procedures as laid out, he or she should be able to conduct the same case study from scratch (Creswell, 2007; Yin, 2009, p. 36). Note that the emphasis is on replicating the case study and not on replicating the results of the study as the circumstances of the study may differ as may the interpretations of the investigator based on his or her own realities.

5 Findings from the research study

This chapter presents the findings which emerged from the analysis of the three data sets which were collected in the context of this research study—TECERS scores of the preprimary classrooms, in-depth interviews of four preprimary teachers and four school leaders, and the review of relevant documents retrieved from the school and the website. The chapter has been organized into three sub-sections covering the findings from each of these data sets.

5.1 Description of the classroom observation scores on the TECERS tool

Table 5 below presents the TECERS scores of the case study school as well as the TECERS scores of 45 preschool centers and low-fee private schools sampled in the Quality Matters²⁴ study (MSSRF, 2001) study. Unfortunately, the raw data from the Quality Matters study was unavailable and hence the reported results could not be disaggregated to understand how the low-fee private schools in urban areas (specifically in Chennai) from the study sample performed in terms of quality and child learning outcomes. Nevertheless, the Quality Matters study (MSSRF, 2001, p. 54) reports a moderately strong correlation between the quality of the preschool centers and the measured child learning outcomes after controlling for various factors like parent education, household income, location, and type of centers.

Table 5. TECERS scores from the Quality Matters study and the case study school

Sample	Overall	INFRA	PCR	PLA	LRE	FGMA	CA	SD
Quality Matters (n=45)	48.3	59.8	64.7	29.4	55.1	36.1	34.6	58.2
Quality Matters top 5 preschool centers	77	62	88.75	72.37	80.04	89.04	62.50	84.34
Case study school	79.24	95	93.75	57.14	77.78	57.14	87.5	86.36

Overall – Mean of all the dimension scores; **Infra** – Infrastructure – Furnishing, Physical Setting; **PCR** – Personal Care and Routine; **PLA** – Physical Learning Aids; **LRE** – Language and Reasoning Experiences; **FGMA** – Fine and Gross Motor Activities; **CA** – Creative Activities; **SD** – Social Development

²⁴ The Quality Matters study was a comprehensive study conducted in Tamil Nadu in the year 2000 by MS Swaminathan Research Foundation to validate the TECERS tool and to also explore the relationship between the quality of the ECE environment and child learning outcomes.

Overall, the case study school had good quality ECE environment in its preprimary grades which was at par with the quality of the ECE environment in the top five preschools in the Quality Matters study. The case study school scored better on certain dimensions, particularly infrastructure and creative activities, while at the same time scoring slightly less on dimensions like physical learning aids and fine and gross motor activities. Nevertheless, these scores were comparable and the overall scores reflected a similar, good quality ECE. The following sub-sections present a qualitative description of the scores for each of the seven dimensions for the case study school. These descriptions are based on the descriptions of the individual items in the TECERS tool and also on the field notes from the observations.

5.1.1 Infrastructure – Furnishing and Physical Setting

In terms of infrastructure, the case study school had all the basic elements in place such as functional and clean toilets, drinking water faucets, and a boundary wall to protect the children from hazards such as vehicular traffic as well as stray dogs and cattle (which is a common sight in India). In terms of classroom space, the classrooms were large enough for 40 children, and there was space for activities either in the front of the classroom or in the center, with the children seated around the central free space. While the ventilation in the classrooms was poor, with only the entrance door and a tiny window for ventilation, the classrooms were adequately lit by artificial lighting. The furniture in the classrooms was the bare minimum with just the benches and desks for the students and a chair and a desk for the teachers. There was some storage space for the teacher in the form of a small cupboard, but the cupboards were insufficient and the teachers had used their desks and the floor to store their teaching and learning materials as well as the children's notebooks. Nevertheless, overall the physical setting of the classrooms was adequate and met the minimum requirements for child-friendly spaces in that no harmful or hazardous materials were lying around.

5.1.2 Personal Care and Routine

The preprimary grades in the case study school scored quite high on personal care and routine. Overall, the children were well-groomed and were observed following good hygiene habits such as washing hands before meals and after toileting. While the teachers were not observed checking the grooming of children on the day of the visit, when asked, the teachers

said that they checked the grooming of all the children routinely once a week. In general, the teachers were observed paying attention to the grooming of the children and on multiple occasions, they were observed either helping children tidy up or encouraging them to tidy up on their own. For instance, during the class hours, the Junior KG teacher 2 was observed helping a child whose ‘bindi²⁵’ had come off put it back on her forehead.

During the lunch break, the teachers ensured that all the children washed their hands before opening their lunch boxes. While the teachers encouraged the children to eat by themselves, the teachers were also observed helping some children either open their lunch boxes or mix their food (a typical lunch in India consists of rice, some vegetable curry, and a gravy made out of lentils; the various food items are carried in separate containers and need to be mixed together before eating). In general, the lunchtime atmosphere was pleasant and the teachers walked about and encouraged the children to eat their vegetables and fruits.

The teachers encouraged similar independence when it came to toileting, with the children appearing to know the routine well. During the observations, some children raised their hands and asked for permission to go to the toilet. The teachers promptly responded to these children’s needs and allowed them to step out of the classroom to visit the toilet. Typical of low-fee private schools, the preprimary teachers in the case study school did not have teaching assistants in their classrooms and hence they couldn’t leave their classrooms to accompany the children to the toilets. However, the four preprimary classrooms shared an ‘aaya’ (or auxiliary staff) and the teachers would generally signal to the aaya to help the children with toileting if necessary. The aaya was stationed in the corridor of the preprimary grades and was available to help the children as directed by the teachers. For instance, the aaya was also observed helping the children during the lunch break alongside the teachers.

Moving on, while nap time was not explicitly marked on the daily schedule, all the preprimary teachers asked the children to take a nap in the afternoon while they corrected the children’s classwork and homework books. When asked, the teachers said they typically encouraged the children to take a nap in the afternoon. However, during this nap time, it was

²⁵ A colored dot wore in the center of the forehead by girls and women in the Indian subcontinent

observed that the children were free to talk quietly if they did not want to take a nap. Apart from this routine nap time, in one of the junior kindergarten classes, it was observed that a child was sleeping on a mat next to the teacher's desk. On enquiring, the teacher noted that the child wasn't feeling well that day and hence she had laid out the mat for him to rest.

5.1.3 Physical Learning Aids

This is one domain in which the preprimary grades scored relatively low on the TECERS tool. In terms of materials for outdoor play and activities, the children only had access to a throw-ball and a couple of skipping ropes which was not sufficient for a class of 40 children. Similarly, learning materials for use by children indoors were also not sufficient for even half the children to use at the same time. However, in terms of variety, the classrooms had beads, building blocks, PlayDoh, art and craft materials like crayons, and other learning aids prepared by the teachers such as word charts, various flashcards, and shapes cutouts.

On a positive note, all the four classrooms were print-rich and had relevant displays which the children could easily see. Moreover, the teachers occasionally referred to these displays while teaching and revising concepts, particularly the shapes cutouts and sight²⁶ word charts. Additionally, while none of the classrooms had any child-produced art and craftwork on display, the walls of the classrooms were covered in scribbles and the handiwork of the children. During the post-observation conversation with the assistant school leader, he noted that while the preprimary children are not encouraged to write on the walls, they are not punished for it. Instead, the school paints the preprimary classrooms annually as they understand that little children like exploring writing on the walls and other large surfaces.

5.1.4 Language and Reasoning Experiences

All the preprimary teachers used the vernacular language—Tamil—to communicate with the children and to explain concepts. The use of English was limited to simple instructions

²⁶ Sight words are high frequency words that young children are encouraged to memorize as a whole by sight to increase the speed of reading as once memorized these words will not require any strategies to decode

and questions like ‘Please sit down,’ ‘Copy this in your notebooks,’ and ‘Who wants to sing a song?’ in order to familiarize the children with simple instructions in English. On asking the teachers why English was being introduced this early, they responded that it was being done primarily to cater to parents’ expectation that their children should learn English as early as possible, and also because the school marketed itself as an English medium school.

All the preprimary teachers were observed asking open-ended questions which required longer and more complex answers from the children. For instance, the senior KG teacher 1, when introducing the topic ‘transportation,’ asked the children how they got to school every day and also about other vehicles they had seen on the road. While peer learning was not explicitly used or encouraged, the children were not discouraged from freely interacting with their peers and with the teachers outside of formal activities. Nevertheless, even though the teachers regularly interacted with most of the children to exchange information and for social interaction, no scheduled activities were done for the explicit use of languages such as children talking about their experiences, show and tell activity, or picture talk activity.

For reasoning and math, the teachers were observed using concrete objects (e.g., a box of pencils and building blocks) to teach concepts like counting and other materials such as shape cards for learning shapes and number flashcards with dots instead of digits to teach the concept of the value of different numbers. However, the learning materials were limited in supply and not all the children could participate in the learning activities. Moreover, while the teachers made use of learning materials, these materials were used in a routine manner and the children were not allowed to use the materials with flexible guidance. For instance, the senior KG teacher 2 had a box with some pencils and she called children one at a time to the front and asked them to count and give her a particular number of pencils. Some children wanted to count all the pencils in the box but they were not allowed to do so.

5.1.5 Fine and Gross Motor Activities

As with physical learning aids, the classrooms did not have adequate materials for fine and gross motor activities. In fact, the only fine motor practice that the children were getting daily was through the writing work that they did in the class and also for homework. Similarly, in terms of gross motor activities, the children did not engage daily in any planned and

scheduled gross motor activities. Rather, the children were taken out to the playground only once a week during which time the teachers organized repetitive kinds of group play with no variety or free play. For example, when asked, the teachers mentioned that they made the children play games such as throw-ball and skipping. The preprimary teachers and the assistant school leader also mentioned that they had cut down the outdoor playtime after receiving several complaints from parents that their children were coming home with bruises which they received during the free play or outdoor playtime. Therefore, to avoid further complaints, the school leadership decided to cut down the outdoor playtime to once a week.

5.1.6 Creative Activities

The preprimary grades in the case study school scored quite high on creative activities, which is in contrast to typical low-fee private schools where rote methods are predominantly followed. Singing rhymes was an integral part of the learning in these classrooms, but unlike the choral repetition after the teacher that commonly happens in low-fee private schools, the children in the case study school actively participated and even led the singing of rhymes in their classrooms. The children would suggest rhymes and begin singing them. Moreover, the children were also observed clapping and doing the actions while singing rhymes, and the teachers were likewise observed joining the children in doing these actions. The children's engagement was particularly high when they were singing rhymes.

The children also did certain arts and craft activities at least once a week. The classrooms had supplies of crayons, coloring books, and other relevant materials for these activities. However, as observed, the children were not given the freedom of expression as the teachers typically drew some object on the blackboard and instructed the children to replicate the images in their drawing books. Even in terms of coloring these images, the children seemed to be given limited freedom by the teachers regarding which colors to use for the objects, as gathered from the same colors used for the same objects in the children's drawing books.

5.1.7 Social Development

The preprimary teachers interacted frequently with the children and no negative interactions (e.g., scolding and physical punishment) were observed during the 8 hours of observation.

The tonality, in general, was very pleasant and the children did not appear to be afraid of the teachers (which is not something that the researcher had anecdotally observed in typical low-fee private schools where harsh disciplinary methods are routinely used). All the four preprimary teachers greeted the children individually when the children were dropped off at the school by their parents, and similarly, the teachers said goodbye to most of the children at the end of the day when their parents came to pick them up. The children seemed used to the routine and reciprocated positively by greeting and also saying goodbye to their teachers.

The teachers encouraged the children to ask questions and were responsive to the children's questions. For instance, in one junior KG classroom, one child suddenly called out to the teacher and asked if the teacher was going to give him the English letters flashcards. The teacher patiently explained to the child that right now she was conducting another activity and that she would give him the flashcards once they started the activity using the flashcards. Furthermore, the teachers were also observed encouraging the children to share and help each other, particularly during the lunch break during which the teachers encouraged the children to share their meals and also help each other open their lunch boxes or water bottles.

Additionally, while outdoor free play was not observed, the children were observed engaging in indoor free play intermittently whenever formal learning activities were not being conducted. The children were free to move about the classrooms when learning activities were not happening and they were also not discouraged from interacting or playing with their peers. Overall, the children appeared to have good self-regulation and social skills as they not only appeared to be following certain norms and classroom rules, but they also appeared very comfortable interacting with peers as well as with the teachers as noted earlier.

5.2 Findings from the qualitative interviews

The following seven themes and related sub-themes were identified in the analysis of the interview transcripts. A summary of each of the themes and relevant quotes from the interviews are given below to further illustrate the findings on these themes and sub-themes.

5.2.1 Theme 1: Culture of collaboration, freedom, appreciation, and learning

Collaboration

Collaboration among teachers as well as collaboration between school leaders and teachers was a recurring theme in all the interviews. One of the key areas of collaboration among the teachers was in the planning of lessons. The preprimary teachers viewed themselves as partners and worked in pairs, with the two senior KG teachers forming one pair and the two junior KG teachers similarly forming another pair. The teacher pairs got together every Saturday and planned for the lessons for the coming week. Moreover, the teachers often split the task of creating lesson plans as well as teaching and learning resources between themselves and then shared the plans and resources with each other on Saturday. For example, one of the teachers would prepare the lesson plans and required resources for English, while the other teacher would prepare the lesson plans and resources for math.

Senior KG teacher 2 on how she prepared for her lessons:

“Partner and I decide together what to teach. There is another teacher handling UKG [upper or senior kindergarten] A section [a cohort of students in a grade] and I handle UKG B section. We both write together lesson plans and plan for our classes. If she prepares materials for English, I will prepare for math. Each of us can prepare for only one. We won’t get enough materials for preparing for every subject. We won’t have time also. So we will do together and exchange materials.”

Another key area of collaboration was in terms of support for leave of absence. The teachers appreciated the support they received from their colleagues whenever they had to take off from work as their partners would arrange to manage their students. Since low-fee private schools rarely have extra teachers or even teaching assistants on their payrolls, it is not only challenging for teachers to take off in such schools, but it is also a loss for students who often end up being managed by the ‘aayas,’ or the auxiliary staff, who are primarily responsible for the cleanliness of the school. However, in the case study school, the teachers would plan their leave of absence and arrange with the partner teacher to combine both the sections of the same grade on the day of their absence. While this sounds simple enough to implement in all schools, this requires collaboration and coordination between the teachers as well as

with the auxiliary staff as the benches have to be moved to one room to accommodate the combined strength of the two sections and the teacher taking the combined class has to ensure that she has enough resources for all the students and she further also has to alter her plans to ensure she has enough time to complete the learning activities with all the students.

In terms of collaboration between teachers and school leadership, the school leaders said they regularly met with the teachers and collaboratively planned for the upcoming term (a term ranges from 2-3 months and there are typically 4 terms in an academic year). The school leaders also mentioned that they involved teachers in certain decision-making processes such as the setting of goals for the term and the selection of textbooks for their grades before the start of a new academic year. Furthermore, the assistant school leader noted on multiple instances that he practiced a decentralized approach by involving teachers in discussions and encouraging them to come up with plans and goals rather than proposing it to them

Assistant school leader when describing the changes he had introduced in the school,

“So initially I thought these all things are needed for the school and I thought of setting goals and asked the teachers to do it instead of just proposing it to them, and it didn’t work. But I realized that it’s much better when we involve the teachers in the process and give them the ownership. Now I just tell them that this is something which seems to be working in different schools; I read about this in a book or something; do you think it will work in our classrooms? So some teachers ... we get the cues from the expression itself, right? If I really feel like it will work based on their facial expression itself I try to convince them. Otherwise, they also give some arguments from their side and if I feel they have valid arguments I try not to push and I just go by their views. But otherwise it’s more like we just try to discuss and we just come to a decision like we will try it for some time, like a week or so, and if it’s working we will continue.”

Freedom and flexibility

Freedom and flexibility to plan and teach as per their own style and pace emerged as a key sub-theme which all of the preprimary teachers appreciated about the school culture. The teachers particularly felt empowered to take key decisions about the teaching and learning

methods they followed in their classrooms. They also called out the freedom they enjoyed and the support they received from the school leadership to try out their ideas for activities in the classroom as well as during key celebration days like ‘Children’s Day’ on November 14 every year. Additionally, the teachers also felt that their opinions were heard and respected by the school leaders and they alluded to this being something that kept them motivated to not only remain with the school but also to become better teachers.

Assistant school leader on who decided the pedagogy to be followed for preprimary grades,

“Each and every teacher, they teach little differently. The preprimary teachers, they decide the things they do.”

Preprimary coordinator on how the preprimary teachers planned for their lessons,

“Actually they [preprimary teachers] will be getting a content book [from Xseed Education—an education solution provider that the school has partnered with]. So in that content book it will be clearly given what should be taught for that day, how it should be taught, everything. If they have their own idea that also they can implement. It’s not compulsory that they have to follow the book alone.”

Junior KG teacher 1 on what kept her from leaving the school,

“They let us free here. Even if we tell our opinions, they don’t disturb us. They let us do what we want to do. If we say, “Ma’am/ Sir we can do this,” they don’t stop us. Whatever we have done so far has been successful only; nothing has failed. Every school has its own rules. Every school has norms. This school also has norms about how to do, what to do... However, if we tell our opinions they [school leaders] accept. They never say no. I am working in this school for 11 years because of this.”

Appreciating teachers

Appreciation as a mechanism to motivate teachers as well as to retain teachers came up multiple times as an important topic in both the teachers’ interviews as well as the interviews of the school leaders. The school leaders explicitly called out appreciating teachers for their work and efforts as a conscious practice at the school, particularly in the context of how they supported the preprimary teachers to become better teachers. They also acknowledged that

among all the teachers at the school, the preprimary teachers were perhaps the least appreciated for their efforts and most picked on for their shortcomings as they are charged with the care of little children who are prone to hurting themselves while playing, in which cases the parents come to the school and complain about the teachers. Therefore, the school leaders consciously called out even the smallest efforts by the preprimary teachers during staff meetings and thanked them for their efforts. Moreover, considering that teacher attrition in low-fee private schools is typically high, with teachers leaving jobs after a year or two, the school leaders took particular interest in retaining the preprimary teachers by not just verbally appreciating them, but by also appreciating their efforts through gifts as well as relatively better salaries compared to the generally low salaries in typical low-fee private schools. The average monthly salary of the preprimary teachers in the case study school was INR 10,000 (~\$140) compared to INR 7,500 (~\$105) in typical low-fee private schools (FSG, 2017).

School principal on how she supported the teachers in becoming better teachers,

“Appreciating them publicly in the meetings... giving them small gifts... like this we do things to encourage and motivate teachers. We meet before every term ends. We tell them how they have done in that term... encouragement is very important, right? If we encourage them telling how well they have done, they will be motivated to do well in the next term as well.”

Assistant school leader on how he supported the teachers to become better teachers,

“I make sure I appreciate the teachers a lot and not just let them down in front of the people who come from outside. Also, I make sure to appreciate all the teachers in some way so there is very little space for hostility. So it’s not like only one teacher gets appreciated often, and actually there are things that all the teachers do and all the teachers have some very good plus [positives] which adds a lot to the school. So I am primarily focusing on those things now and I feel like it is working. So when I focus on those things, they are happy and they are also willing to do other things.”

Junior KG teacher 2 on how the school leadership supported her in her work,

“Whatever we do, they appreciate us and give us ideas to do better. Whatever we do, they appreciate... flashcards, chart work... whatever we do like that they appreciate

us first and give us ideas to do better. All the feedback will be in appreciation only. They appreciate telling that we are doing better.”

Interestingly, the preprimary teachers also called out appreciation from other teachers and from parents as a motivating factor for them as well as a reason for their job satisfaction. Rather than a concerted effort by all the staff members to appreciate the preprimary teachers, the fact that other teachers also appreciated the efforts of the preprimary teachers seemed more of a culture of appreciating each other in the school, with the school leaders setting an example. The appreciation from parents seemed to be linked to the fact that the teachers regularly engaged with the parents to update them on their child's progress.

Senior KG teacher 2 on what motivated her in her job,

“Other class teachers appreciate. Staff members' children are in the kindergarten section. They say, “It is very difficult for us to manage these kids at home for few hours. If you say, my kid is writing; but he doesn't listen to me.” Like this they say; they make me feel very proud. ... Even parents also come and say. Even if the kids go to second and third class [grade], parents come and meet us telling that they studied well in UKG ma'am. Now also they are doing... we like that. We still get respect. That makes me very happy.”

Culture of learning

Another strong sub-theme which emerged was the culture of learning, particularly from the teacher interviews and the interview of the assistant school leader. All the preprimary teachers mentioned using various resources such as the internet, books, peers, friends as well as their relatives, and even their own children to learn how to be more effective in their classrooms. None of the teachers started their teaching career as trained early childhood education teachers; however, what differentiated these teachers from typical low-fee private school teachers was their desire to learn and become better teachers. In fact, the principal explicitly called out that while selecting teachers for the preprimary grades, more than qualifications and teacher training, she looked for two specific things in the teachers: how the teacher interacted with children and whether she was open to learning on the job.

LKG teacher 1 on the steps she had taken to be a better teacher,

“I meet government teachers and ask them many doubts. In government schools, they follow activity-based learning methods. Students have good reading abilities there, but they don’t know to write. I ask the teachers what they do that children have good reading abilities. Those teachers are in my contact; I talk to them. In our school, we did not have four-line notebooks to write alphabets [letters]. I went out to a different school to learn this on my own. I met a teacher from another school to learn how she teaches strokes and how she trains kids to write in four-line notebooks. I learnt that. And I watch a lot of YouTube videos. After we got internet, I watch videos... how they take class... how they make children understand. I watch English channels also...this Dora cartoon... all this I watch because if I watch this and through these things I teach, children will understand better. That’s why if I hear that someone is doing something differently in any of the schools, I go straightaway to the school to learn what they are doing and how they are doing it. Somehow I manage to meet the teachers in the schools and learn what they do. I come back and follow it in my classes.”

The assistant school leader also commented on how he keeps learning about early childhood education as he did not have a background in early childhood education,

“And after I have joined now... in recent days I have started reading more about this childhood development and everything, and so nowadays we [with the teachers] are trying to have a small circle ... it's not very formal as such, but at certain times we just have a small circle and just talk about what we can do.”

The culture of learning was also documented in the desire of the teachers as well as school leadership to seek feedback to learn and grow. Following the classroom observations in each of the four preprimary classrooms, the preprimary teachers explicitly asked for feedback on how they had conducted their classes. Similarly, following the in-depth interview with the assistant school leader, he proactively reached out to discuss and get feedback on a couple of ideas he was planning to implement for the primary and preprimary grades, including

conducting a baseline assessment using the IDELA²⁷ tool. A few weeks later, he also reached out to discuss challenges that he was facing with the implementation of some of the ideas and sought suggestions on how to deal with these challenges. One feedback given to the school leader post the classroom observations was the absence of an outdoor play area for the preprimary children. Following up on this, the school leader reached out to Playground Ideas—a non-profit that provides free ideas on how to build a playground from waste materials—and the school built a children’s play area using discarded tires and other waste materials that were sourced locally. Similarly, another suggestion given to the assistant school leader to address the challenge of assessing primary grade students with poor reading skills was to use pictorial assessments to test understanding of concepts and to use a separate reading assessment to gauge reading levels. This idea was also promptly implemented, and it was mentioned (unprompted) by one of the teachers in her interview.

5.2.2 Theme 2: From accidental teachers to highly motivated teachers

None of the preprimary teachers had any relevant education or training in early childhood education when they were recruited by the school. Two out of four teachers had only completed their higher secondary education (or grade 12), while the other two had completed bachelor’s degrees in economics at the time of joining the school. Moreover, teaching wasn’t a profession they had chosen by themselves; rather, either their parents or a relative recommended the teaching profession to them as a safe (personal safety) and secure (prospects of becoming a government teacher someday) profession. On similar lines, none of the teachers had consciously chosen to become a preprimary teacher: on applying for a job they were informed that the school only had a vacancy for a preprimary teacher and that’s how they ended up becoming preprimary teachers at the school. To summarize, all the four preprimary teachers at the school can be described as ‘accidental teachers’ who did not proactively choose this profession nor did they desire to be preprimary teachers.

²⁷ The International Development and Early Learning Assessment is a rigorous global tool that measures children’s early learning and development and provides ECCD programs, donors, and government partners with clear evidence on the status of children from 3.5 to 6 years. Source: <https://idela-network.org/>

Junior KG teacher 1 on why she became a preprimary teacher,

“I studied Arabic. I had an interest in Arabic. I had an ambition of going to Saudi [Arabia] and working [there]. I joined classes and completed three years in Arabic studies. I was at home after completing the course and at that time the correspondent sir asked me to come and teach Arabic here in the school. Like that only I entered this school and started teaching Arabic initially.”

Senior KG teacher 2 on why she chose to become a teacher,

“After 12th standard, I did not know what to do; after results came, I did not know what to choose. My mom told if we choose teaching line, we will get government job. That time, my uncle was working as government teacher. He has done B.Sc. So at that time he got government job. We asked suggestion to him. When asked for suggestion, he said for girls teaching is the safest job. We can tell the world proudly, and that in nine years of joining we can get government job. Like that he said. So, we also without having second thoughts, immediately I joined.”

However, later in the interviews, a contrasting picture of these accidental teachers emerged which showed them as highly motivated teachers who genuinely loved their job and had a strong sense of self-efficacy as evident in their internal locus of control and their initiatives to help slow learners. For example, unlike typical low-free private school teachers who seldom plan and prepare for their lessons, all the preprimary teachers brought up planning and preparation as a key aspect of their job. This was evident in the classroom observations where the teachers were seen following their written lesson plans and they also had all the required materials for the lesson ready. Similarly, the teachers demonstrated a strong sense of empathy as well as a strong internal locus of control in the way they described their ownership of the learning outcomes of all their students, including slow learners.

Junior KG teacher 2 on how she knew what she was supposed to teach in her class,

“Next week’s lesson plan will be decided the week before itself. We prepare all the materials, arrange the resource kit based on that—Monday to Friday, what and all material we need... We prepare accordingly. In 45 minutes, what and all we should do, like a 5-step process we will write beforehand.”

Senior KG teacher 2 on the role of teachers, particularly in helping slow learners,

“We won’t know what mindset they have right? We can’t call it dull. They could be homesick. If they have any problems in their mind, they won’t listen to us. They might take leave. Students like these mostly will be slow learners. If they take leave, next day we will teach them. If we write on their notebook extra, they will write. If teachers think, they can do anything. How much ever dull students are, teachers can help and make them pass. They [teachers] can do a lot of things.”

Junior KG teacher 1 on the role of teachers, particularly in helping slow learners,

“I have never divided students based on learning speed. I take extra care for them. I make sure everybody achieves the learning outcomes.”

In addition to having a strong sense of self-efficacy, three of the preprimary teachers also explicitly called out their personal weaknesses when asked to describe the challenges that they faced in their jobs. Not only did these teachers show awareness and acceptance of their personal weaknesses, but they also talked about how they were proactively working to overcome these personal weaknesses. Anecdotally, this is again atypical of low-fee private school teachers who are often quick to shift the blame for their personal weaknesses (e.g., inability to control their anger) on to external circumstances and situations such as large class strengths and the absence of teaching assistants in their classrooms.

Senior KG teacher 2 on the challenges she faced in her current role,

“Initially and all, I used to think that I should not show anger to these kids. Every day I used to think, I should not get tensed. I won’t be like that, otherwise, we cannot handle this aged kids. ... Maximum it should not be there, every day when I pray, I wish I should not anger anybody and I should not show anger myself. Like this I pray.”

Similarly, one of the teachers candidly acknowledged that she wasn’t a trained ECE teacher and therefore there were many things that she did not know yet. However, she added that after recently joining a government-approved online diploma course in elementary education she was learning many things which were critical for a good teacher to know and that she wasn’t even aware she did not know these things before taking the course. The first step in

the process of self-improvement is the acceptance of the limitations of one's knowledge and skills, and by accepting her ignorance, the teacher not only demonstrated openness to learning on the job but also alluded to a genuine intention to learn and grow.

Senior KG teacher 2 on what steps she had taken to improve as a teacher,

“Actually I am working from so many years, but I don't know all these things. Actually speaking, I don't know many things and all and I was going through this course [an online D.Ed course] only then I know how deeply I should say our profession is very noble profession so we have to do justice to that one. Then only I knew how to write these lesson plans and all. Nothing I was knowing [before].”

Furthermore, the low teacher attrition at the school in general, and in the preprimary grades in particular, speak as much to the positive and enabling school culture as to the conscious choice of the teachers to embrace teaching as their preferred profession. Moreover, since the time the teachers joined the school, all of them had either completed or were in the process of completing their higher education (either a master's degree or a government-approved teacher training certificate course such as the online D.Ed course), and the common reason shared by the teachers for taking these courses was to become better teachers.

5.2.3 Theme 3: Engaged and supportive school leaders

The case study school seemed to have engaged and supportive school leaders who regularly interacted with the preprimary teachers, visited their classrooms often and provided actionable feedback, and also responded to the requests from the preprimary teacher for materials to conduct activities and also on maintenance related issues (e.g., broken furniture). Additionally, the school leaders also offered support on the use of technology in the classrooms (e.g., troubleshooting when the tablet wouldn't connect to the projector) as well as training on various topics like helping slow learners improve and engaging students better. It is interesting to note that these various functions were carried out by different school leaders both formally (e.g., routine classroom observations and feedback by the preprimary coordinator, and teacher training sessions by the correspondent) and informally (e.g., the assistant school leader troubleshooting when one of the teachers had difficulty connecting a tablet to

the projector, and the principal occasionally chatting with the preprimary teachers when she walked home as the preprimary section was on the way to her home).

Overall, all the four preprimary teachers noted that the school leaders collectively were very involved in the functioning of the school in general and in the functioning of the preprimary grades in particular. While support in terms of access to materials and resources required to conduct various learning activities was a recurring topic, the teachers also noted that the school leaders supported them to be better teachers by giving them regular feedback on their classroom teaching as well as their work (e.g., lesson plans and resources prepared by the teachers). Moreover, the school leaders also demonstrated an awareness of the challenges faced by teachers and appeared to be offering targeted support to meet these challenges and needs (e.g., protected planning time on Saturdays to ensure that the teachers did not have to spend personal time at home to plan for their lessons). Additionally, the school leaders collectively seemed to give priority to the professional development of the teachers by organizing regular training sessions at the school as well as by organizing visits to model low-fee private schools in Chennai for the teachers to learn through an immersive exercise. Moreover, acknowledging the limitations of a low-fee private school in offering teacher training sessions, the principal also noted that she encouraged her teachers to enroll for additional teacher training courses (either online and through distance education).

Junior KG teacher 1 on how the school was supporting her in her work,

“Sir [correspondent] is involved very much... He often says, “If you need anything, ask, I will do. Don’t hide anything, even if a child is hurt, don’t hide. Accidents happen unexpectedly. Even if something like that happens, ask idea from me, I will tell you what to do.” Like this he says.... He supports us. If something happens... like student falling down... so that stitches have to be done, he helps. He helps in taking them to hospital... if something like this happens.”

Similarly, Senior KG teacher 1 on how the school was supporting her in her work,

“Really school supports the teachers. Whatever we want, materials or something to do lessons, they provide us and they also guide us to do exams and how to present also. And they are on our side only... whatever we say they provide us with the things and materials.”

Senior KG teacher 2 on how the school was supporting her professional development,

“[The assistant school leader] has taught us many new things. Last month, he gave ten words called sight words, and he said, ‘Ma’am, practice these words well. Initially they [children] have to see and say. After that they have to write. If ‘my’ is the word, they have to write on their hands. And then they have to clap and say.’ Like this he told five methods. ‘Like this you practice ten words, how much time will it take? Ten days? After that another set of words you have to exchange and say.’ Like this he said. Till now we have completed two sets of words like that. Exam came up and it is pending now. He introduced that last month. Before that he asked us to do cards for A-Z. To do A-Z, he asked us to prepare a pouch with capital letters and small letters of all alphabets. So that if we say ‘bat,’ kids themselves have to pick the alphabets and form the word. If we do this, in home also they can do that. We can do this beautifully on benches. Like this he has taught us so many things.”

The engagement of the school leaders also came out strongly in terms of their willingness and responsiveness to address teachers concerns. Given that typical low-fee private schools do not have building managers, often the teachers’ complaints regarding maintenance issues take weeks to get addressed as the principal or the owner of the school has to personally address such issues and get them resolved. However, in the case study school, the school leaders had instituted a system wherein the teachers could visit the principal’s office whenever they had a complaint and enter the complaint into a register explicitly kept for maintenance issues and internal complaints. This register served as a reminder for the school leaders to address issues on priority so that the classes, as well as the teachers’ morale, did not get affected due to these issues which were out of the teachers’ control.

Junior KG teacher 1 (unprompted) on how the school supported her in her job,

“If there is a problem in the school, if there is a fault in the building, if there is water leakage, if there is water shortage, if the bathroom is not clean, whatever we write and give, they will report immediately, there will be people for it, so they will take care of this, if we have any problem in teaching also, they will take care. If we write it, they will take care... After the resolution, they will ask our sign... asking us if the

complaint has been resolved... They will ask us and after getting our sign only they will stop the process. Until that, it will continue happening."

The interviews also revealed innovativeness in the school leadership, particularly from the assistant school leader who was an engineer by education. For example, to solve the challenge of teachers not being able to use personal computers and projectors in their classrooms due to low technical skills, the assistant school leader put together a low-cost system comprising of an easy-to-use projector and an 'android' tablet as the teachers were quite familiar with the 'android' interface on their smartphones. Similarly, on getting feedback that the preprimary aged children needed more free-play time as well as outdoor play time, the assistant school leader took it on as a challenge and created a children's park in one corner of the school within three months by upcycling scrap materials like car tires and ropes.

The assistant school leader explaining how he supported the teachers in their job,

"One of the main problems with the digital stuff and the teachers is that most of them are not familiar working with computers. So it's very hard for them to use computers and so what I thought was it will be much easier for them to use tablets since they have the same interface in their mobiles. So we got a low cost projector where we can simply [easily] connect the tablets. So we had some tablets in our school where we can simply [easily] connect the tablets to the projector. And also we connected the projector to the audio system and tied it with the rope so that it is also portable."

5.2.4 Theme 4: Unorthodox teacher selection criteria and training methods

The school leaders unanimously called out two very unorthodox criteria for selection of teachers—the candidate's attitude towards children and the candidate's openness to learning on the job. Unlike most schools which look for teacher training certificates and other qualifications, the school leaders were very clear that they would rather have teachers with the right attitude than teachers with the right qualifications as they can always train the teachers with the right attitude, but they may not be able to do anything about the wrong attitude of the teachers with the right qualifications. This approach seemed to work as even though all the preprimary teachers did not have the right qualifications when they joined the school, they seemed to have the right attitude towards children and also seemed to have learned

many of the skills required of a teacher on the job (as evident from the classroom observations and also the in-depth interviews). Aligning with what the school leaders had shared about the teacher selection process, two out of the four preprimary teachers also explicitly called out that the principal offered them the job only after checking how they interacted with children (which was gauged during the demonstration class by the teachers) and how open they were to learning (which was gauged during the job interview).

The correspondent on the selection criteria they used for hiring teachers,

“We look if the teachers are affectionate towards children. First, we will give them two or three classes to see how they behave with children... if they are rough with children... all this we see... if they are affectionate, if students like them. After seeing all this only we make them permanent.”

Similarly, the school principal on what she looked for in a teacher,

“They should have the willingness to learn new things. They should not come with the mentality that they know everything. I ask them this first only, that they have to learn a lot of things in this atmosphere before starting to teach in a class. I tell them this; initially they have to learn new things and a lot of other things to teach well. I give preference to teachers who are willing to learn.”

Once teachers are hired by the school, they are put through a rigorous, but informal training program that lasts from 3 months to 6 months. Initially, the new teachers are hired as assistant teachers and they are asked to shadow a senior teacher for a while. The senior teacher walks the new teacher through her day and gradually prepares the new teacher to take classes on her own. Once the senior teacher feels confident that the new teacher is ready to teach, she would ask the new teacher to start teaching the class while she would shadow her and give her feedback. This entire training process lasts until the senior teacher feels confident that the new teacher is ready to teach on her own without any support.

School principal on how the school supported new teachers when they first join the school,

“Firstly, there are trained teachers already here, right? We leave these new teachers with those experienced teachers for 3 to 6 months for them to learn. I have a teacher

with 10 years of experience. If we leave these new teachers with experienced teachers like her, they automatically learn.”

Junior KG teacher 2 on how the school supported her when she first joined the school,

“I sat in the classes of experienced teachers in the school to observe how they take classes, how they write lesson plans, how they do chart works, how they interact with students. They asked me to observe all this; they asked me to observe how practical the learning is. They gave me a lot of teaching tips: how to do [implement] lesson plans, how to write lesson plans for the upcoming week. They gave training in all this. After this only they [the school leaders] allotted class for me.”

The school also frequently organized training sessions by the school leaders. As mentioned earlier, one of the key methods used by the school leaders to train teachers, which again is quite unheard of in the low-fee private school context, was to take the teachers on immersive visits to model low-fee private schools in Chennai to demonstrate good teaching practices.

Senior KG teacher 2 on what kinds of trainings she had attended at the school,

“They take us for trainings. They have taken us to so many schools. Recently they took us to a school in Padappai [in Chennai]. They talked about how an ideal teacher should be; how an ideal principal should be. Like this they have taken us.”

Apart from this, the school leaders mentioned that they try and organize external trainings for their teachers by non-profit organizations on topics like bullying and mental health. The school also purchased an education solution—Xseed—for the current academic year which included teacher training sessions as part of the intervention package. Interestingly, the assistant school leader also noted that they try and send their teachers for as many free trainings as possible, particularly the demo trainings offered by education companies as part of their sales efforts while being very clear with these education companies that the school may not necessarily buy their interventions or products after the demo training.

The assistant school leader on the various teacher trainings conducted by the school,

“So like recently we have a training session from a publisher. Let's say we have got value education books from a publisher called Arrow and they were organizing training session on moral education, so value-based education, and so the trainers usually they come from different publishers and also some institutions like there is a college nearby and that's a medical college and some of the doctors from that college they wanted to organize a session on mental health. Then there are some organizations who just want to sell their products in the school so they will be willing to give us demo trainings for the teachers. So we might not get their products, but usually we make sure that the trial training at least happens.”

5.2.5 Theme 5: Shared understanding of importance of ECE and appropriate pedagogy

The impact of the culture of learning and the practice of training of new teachers by senior teachers was observed in the shared understanding that the preprimary teachers as well as the school leaders had on the importance of early childhood education and the appropriate pedagogy for the early years. Overall, the school had a strong focus on learning-by-doing and a multi-sensorial approach. A recurrent term used by multiple interviewees was ‘do’ or ‘doing’ in the context of how children learn. Other related terms used were ‘activity-based learning,’ ‘play-way method,’ ‘practical learning,’ ‘multi-sensorial approach,’ ‘visual learning,’ and ‘learning by asking questions.’ These approaches to learning were observed during the classroom observations and documented in the TECERS tool wherein the classrooms scored well on learning activities and the use of materials to teach concepts. This is in stark contrast to the rote methods that are ubiquitous in low-fee private schools.

Preprimary coordinator on which grades had the greatest impact on life outcomes,

“Preprimary grades is the first thing. From that grade only we can mold the children. We can bring them up. That’s the right age to bring the children up.”

Principal on what pedagogy the teachers followed in the preprimary grades,

“The play-way method only. Activity based learning. We encourage that only.”

LKG teacher 2 on what was the best way to teach preprimary-aged children,

“They should not just mug up things. It should not be rote learning. Everybody can write what they have mugged up, but we should ask the kids to tell what they understood. Practical way is best.”

Moreover, the preprimary teachers and the school leadership also shared a common understanding of learning goals for the preprimary grades. Apart from the academic goals of basic literacy (e.g., recognition of letters and emergent reading skills) and basic numeracy (e.g., recognition of numbers and counting), the interviewees also strongly emphasized the critical role of ECE in building a strong foundation for later learning, and further brought up the point that the early years was when the strongest impact could be made on a child’s personality and character. This shared belief that the early years was when a child’s behavior and character can be best molded was further reflected in the interviewees’ focus on non-academic goals such as becoming independent (e.g., eating and toileting on their own), and building good habits (e.g., washing hands before meals) and good behavior (e.g., wishing teachers, sharing with others, helping others, and resolving conflicts).

Junior KG teacher 1 on her end of year goals for her students,

“When they come for LKG initially everything will be new for them... classroom is new... teachers are new. Blackboard is new... Chalk piece is new... everything will be new to them... until 3 years they did not have this exposure. I expect my children to get used to this by the end of the academic year... they should understand that school is a place to learn and develop their knowledge and teachers are there to help them. They should have learnt to understand things... they should have learnt how to talk to new people. Nowadays people rarely speak to their neighbors. Children should also learn how to share things... how to help if someone is hurt... if someone doesn’t have something, they should share with each other. I give snacks break at 3... if some kids don’t bring snacks, other kids call them and share their snacks. These are some of the expectations of the environment I want to create in my classroom. Kids shouldn’t hurt each other... shouldn’t push... shouldn’t beat. All these should be inculcated. I also feel they should obey to what teachers say.”

The school leaders' expectations that the preprimary teachers must be empathetic and motherly above all else and also that it was the role of the teachers to mold students by teaching them values further illustrates the focus on non-academic goals.

Preprimary coordinator on the role of the preprimary teachers in the classroom,

“So a teacher is not only a teacher. We know we have the saying also, teacher is the second mother, right? So teacher is not only for teaching the curriculum and she has to be like a soft touch mother also in the way the teachers speak with the children. It should have soft touch as well as hard touch. Can you understand it? She cannot always pamper the children. If they do mistake, it [teacher] should be strict and warned [children should be warned] at the correct time. This is the right age for the children to correct themselves.”

Assistant school leader on the role of the preprimary teachers in the classroom,

“So first of all, teachers should be able to take care of the children. The little kids... there will be so many things, right... we can't expect them to be very tidy and things like that. Let's say a kid vomits in the classroom; the teacher shouldn't just threaten for that and be rude to the kid for that. Instead, she should be empathetic and take care. Taking care of the children I think is more important. She... a teacher... should be taking care of the children.”

The above examples are not to say that the teachers and the school leaders did not focus on or value any academic goals for the preprimary grades. On the contrary, the interviewees clearly articulated academic goals, particularly goals for English language such as recognition of letter and numbers, early reading skills (reading three-letter words), speaking in English skills (understanding simple instructions in English), reciting rhymes and narrating stories. However, during the interviews, they often circled back to the non-academic goals and called out the primacy of non-academic goals over the academic goals.

5.2.6 Theme 6: Lack of shared understanding of school's vision

Although the school leadership believed that the teachers knew the school's vision well as they had shared the school's vision frequently with the teachers during staff meetings, the

responses from the teachers revealed a lack of shared understanding of the school's vision. Also, there were slight variations in the school's vision as described by the school leaders too. Furthermore, the vision seemed to get diluted as one went from the top (school owner) to the middle (preprimary coordinator) and then to the bottom (teachers) of the hierarchy. To illustrate, the correspondent of the school gave a vivid description of the vision of the school and tied it to the reason he started the school, i.e., to serve the poor and the lower caste communities in the area who, at the time of establishing the school, weren't allowed access to the government schools and the Atomic Energy Central Schools in the area.

When asked to describe the school's vision, the correspondent said,

"In this area there were many below poverty [line] people. Secondly, there were many lower caste people from the scheduled castes. There were only Kendriya Vidyalas [government schools] and the Atomic Energy Central Schools in this area. These were the schools that had good quality education. When these people went there and asked for admission, they were denied. Only for rich students they gave admission. I also went there to ask admission for a student. There was a Brahmin principal (in the caste system, Brahmins are the priest caste and are at the top of the caste hierarchy] who talked in a tone of racism. I ignored him. I wanted to do something for these people from the surrounding villages. So I started the school to give education to people from these sorts of backgrounds."

The principal, who was also the wife of the correspondent and co-founder of the school, on the other hand, explained that the vision of the school was to create scholars out of the area. Interestingly, her version did not explicitly differentiate the background of the students. Furthermore, their son, who is the assistant school leader for preprimary and primary grades, believed that the vision that his parents had for the school was for the school to be one of the best schools in the area. However, he also explicitly called out that his personal vision for the school was to offer the best education to children at affordable cost. Moreover, he also clarified that he hadn't shared his personal vision with anyone yet.

Moving on to the teachers, their interpretation of the vision was a very generic statement which was for the school to be reputed. However, there was significant variation in their

understanding of the school's reputation. For instance, Junior KG teacher 1 and the preprimary coordinator (who was a higher secondary school teacher) believed the school's vision was to be known as a school that achieved 100% pass rate in the annual matriculation examination, while Senior KG teacher 1 believed the school's vision was to be known as the school whose students were good citizens in the community. On the other hand, Senior KG teacher 2 believed the school's vision was to be known as a progressive school that tried new things each year and continued to grow, while Junior KG teacher 2 believed the school's vision was to be known as the school whose students were high achievers.

Interestingly, all the teachers, along with the preprimary coordinator, described the vision of the school in third person by using either 'they' to refer to the school management, or 'our ma'am' to refer to the school principal, or 'our sir' to refer to the school correspondence in describing the vision that the management or the school owners had for the school. In describing the school's vision, they seemed disconnected and impersonal.

For example, the preprimary coordinator described the vision in these terms:

"They [school owners] want full results, 100% results. That's 10th, 11th and 12th."

In contrast, the management used personal terms like 'I,' 'we,' and 'my vision' to describe the vision, indicating a personal stake and ownership of the school's vision.

For example, the principal described her vision in more personal terms:

"We want to create scholars out of this area. As long as I am active and healthy, my only vision is to mold children into scholars."

5.2.7 Theme 7: Shared and distributed leadership

Formal distribution of roles and responsibilities

The case study school had a formal organizational structure in place with well-defined roles and responsibilities for each staff. Overall, as with a typical low-fee private school, the administration and management of the school rested with owners of the school, which in this

case was the husband and wife duo. Officially, the wife carried out the function of the principal of the school, while the husband carried out the function of the correspondent of the school. While all the major decisions regarding the school were jointly taken by both the owners, each of them carried out a very specific function in the day-to-day operations of the school. For instance, the principal was primarily responsible for the academics of the school which included things like setting the academic calendar for the year, allocating workload for teachers, hiring and trainings of teachers, overseeing examinations, and meeting parents with regards to admissions at the start of a new academic year and also to address complaints through the academic year. In contrast, the correspondent's primary responsibility was to manage all outward-facing communication of the school which included interacting with education department officials from the state government, other school owners and principals, education service providers, and the community leaders.

Apart from the principal and correspondent, the school leadership also comprised an assistant school leader and various coordinators who were responsible for the academics of specific grades: preprimary coordinator for all the preprimary grades, primary coordinator for grades 1 to 5, upper primary coordinator for grades 6 to 8, and high school coordinator for grades 9 and 10. These coordinators were typically senior teachers who were formally given certain additional leadership responsibilities such as checking the lesson plans of teachers of these specific grades, visiting the classrooms and giving feedback to these teachers, clarifying doubts of these teachers, and regularly reporting on the teaching and learning quality in these grades to the principal. For instance, the preprimary coordinator was actually a full-time grade 12 science teacher who was given the additional responsibility of looking after the teaching and learning in the preprimary grades. The system of having coordinators for specific grades was introduced in the academic year 2018-19 and prior to this the various functions of the coordinators were carried out by a vice-principal who retired at the end of the previous academic year, necessitating this new system. Unfortunately, the retired vice-principal was unavailable for an interview as he was traveling extensively for months.

Senior KG teacher 2 on how she clarified her doubts regarding lessons plans and activities,

"From this year onwards there is a coordinator. Initially, we will ask them only: that we are going ahead with this. They ask which block we are going ahead with. We tell them. They explain it first. We write lesson plan based on that and submit. They come

for note checking and diary checking. So this year onwards whatever doubts we have, we clarify with them only. Last year when we did not have coordinators, we used to ask to vice principal sir.”

Incidentally, the assistant school leader is the son of the owners and could be considered to be a future principal or correspondent in training. This is again typical of a low-fee private school where the children of the owners eventually take over the administration and management of the school as the school is considered to be a private enterprise that is inherited by the next generation. However, the assistant school leader noted that it was a conscious choice to join the school after his education and that in fact, his parents did not want him to join the school because running a school was not an easy job. Nevertheless, the desire to make a positive impact on the lives of children and the vision to offer high-quality education at an affordable cost to children from low-income households was what drove him to join the school, and that he would have joined some other school if not this one.

While the assistant school leader was officially on the payroll of the school, he enjoyed certain privileges that other school leaders did not. For instance, although he was tasked with improving the English proficiency of the students in the primary grades, he had the liberty to scope out his role as an assistant school leader and he instead chose to focus his efforts on improving the systems and processes in place at the school such as the waste management system and the infrastructure related complaints registration and redressal system for the staff. During the initial months, he also focused on improving the infrastructure, particularly the library and the computer lab. However, during the period of this research study, the assistant school leader had shifted his focus to improving the basic literacy and numeracy levels of students in the primary grades, with plans to also include the preprimary grades in this improvement plan. As part of this improvement plan, the assistant school leader first led the efforts to assess the basic literacy and numeracy levels of all primary and preprimary grade children, and then led the planning and execution of the improvement plan during the rest of the academic year 2018-19. A major part of these efforts involved working with the primary and preprimary teachers to pilot new ideas such as pictorial assessments for children with poor reading levels and reorganizing students into sections based on reading levels to help provide more targeted support to different groups of slow learners.

The assistant school leader when asked to define his role in the school,

“Initially I did not have a clear cut role in the first place when I joined the school. So when I joined the school I was told that I should focus mainly on the primary children: the primary teachers and the primary children. One more thing I was told was that I should do something about the English. So that was something which was expected of me. And after joining the school only I kind of realized the needs of the school and so that is something which I am actually blessed in the school. So I have freedom to... I have lots of freedom that way to design my role in the school. So I am not sure if I'll be allowed to do certain things if I am in other schools like so now English [spoken English] is not my priority in the school. I want to do it eventually, but not now because I feel there are lot more things which need to be done in the school. There also things which can be done very easily in the school. And with that as a start, I felt like I can do the English part eventually.”

Informal distribution of leadership roles and responsibilities

It also emerged from the interviews that certain leadership roles and responsibilities were informally distributed among the teachers. For instance, senior teachers were given the charge of new teachers to train and support them during the initial period for 3 to 6 months. Similarly, the teachers responsible for different sections of the same grade informally organized themselves into pairs with the senior teacher of the two teachers taking on an informal leadership of the teaching and learning activities for that grade, which includes coaching the other teacher and also setting the academic plan for the year.

Senior KG teacher 2 on how the teacher pairs worked in the school,

“Senior teachers will share a lot. Whenever they allot teachers for a class, they will allot one experienced teacher and one new teacher and the experienced teacher will share a lot of things and the other teacher will follow what the experienced teacher says. They [senior teachers] know a lot of things and they know how to maintain about lesson plans. How to teach... everything they know.”

5.2.8 Additional concepts and areas explored in the transcripts

Education intervention

As mentioned earlier, the school had purchased an education intervention by Xseed Education—an Indian education company that provides teaching and learning resources (books and teacher’s guide with lesson plans) as well as teacher training services. The case study school had started using the intervention only in June 2018, and before this, the school curated a set of books from different publishers for use in different grades. The school leadership explained that they had decided to go ahead with the intervention by Xseed primarily to further help improve the quality of teaching and learning in the school, but also partly to cater to the aspirational needs of the parents who have been putting their children in schools affiliated to the Central Board of Secondary Education (CBSE) due to the perception that the CBSE board was better than the state boards of education (although the school followed the state board curriculum, Xseed’s curriculum is based on the CBSE curriculum).

In terms of the impact of the education intervention, the classroom observations, as well as the in-depth interviews, did not point to any significant or major changes introduced by the intervention in the current academic year. Rather, many of the elements of the intervention were already being followed by the preprimary teachers before the introduction of the intervention. For instance, the preprimary teachers had been preparing daily lesson plans as directed by the principal and guided by the senior teachers much before the introduction of ready-made lesson plans by the intervention partner. Moreover, despite the availability of ready-made lesson plans by Xseed, the teachers were still preparing their own hand-written lesson plans. While the teachers’ lesson plans were based on Xseed’s lesson plans, the teachers were customizing these lesson plans based on their classroom contexts (e.g. class sizes) and availability of materials (e.g., sand-pit) to conduct the recommended activities.

Similarly, while the education intervention included teacher training sessions to help the teachers understand how to use the teachers’ guide and the various books and resources, the training of teachers was also not a new phenomenon at the case study school as documented in theme 4 in the earlier section. Moreover, since the start of the 2018-19 academic year, Xseed Education had only conducted three trainings sessions for the teachers, all of which

mainly focused on the use of the teaching and learning materials provided by Xseed and the recommended pedagogy. During the classroom observations, the teachers not only appeared very comfortable using the instructional strategies observed, but they were also observed tweaking the teacher instructions given in the Xseed lesson plans. For instance, while the lesson plan instructed the teachers to use English to instruct the students, the teachers consciously and predominantly used the local language Tamil to communicate with the students as they felt that it was critical to the use the children's first language in the early grades. Similarly, while Xseed's lesson plans called for an assessment of children after every lesson to gauge learning outcomes, the teachers had converted the assessments into homework as they felt that they wouldn't have enough time to assess all the children.

Context of the school

The interview protocols also included questions on the context within which the school and the various stakeholders operated. The case study school is located on the outskirts of the South Indian metropolitan city of Chennai in the suburbs of Kalpakkam. The township is the home to one of the largest nuclear power plants in India, and not surprisingly the Department of Atomic Energy (DAE) of the Indian government is the largest employer in that area. Moreover, the DAE also runs two schools which cater primarily to the children of its employees. In addition to these DAE schools, the township also has two Kendriya Vidyalayas (Central government schools) which also cater to the wider public at large. However, as noted by the school owner, children from low-income households (who also typically come from lower castes²⁸) were historically shunned away from these DAE and Central government schools and this was one of his primary motivations for starting the school in 1995.

The case study school largely caters to low-income households in and around Kalpakkam, including the various fishing communities as Chennai is a coastal city. Most of the parents have never been to schools or dropped out of schools early to help their parents with their

²⁸ The ancient caste system in India divided Hindus into four main categories - Brahmins, Kshatriyas, Vaishyas and the Shudras. At the top of the hierarchy were the Brahmins who were mainly teachers, intellectuals, and priests. Then came the Kshatriyas, or the warriors and rulers. The third slot went to the Vaishyas, or the traders, and at the bottom of the heap were the Shudras who did all the menial jobs. Source: <https://www.bbc.com/news/world-asia-india-35650616>

family trade (fishing or farming). The average household income of these families, as quoted by the assistant school leader, was between USD 100 and USD 140 per month. As is common in most low-fee private schools, one of the biggest challenges of the school is collecting the monthly tuition fee from the parents, which is about USD 8 per month for the preprimary grades. Moreover, the school also faced challenges in getting the parents to cooperate with the teachers and the school leaders, particularly when they were implementing any new ideas in the school. For instance, the parents weren't keen on their children getting more free-play and outdoor playtime and regularly complained to the school leaders about minor injuries sustained by their children when playing in the open playground.

Another challenge that the school faced was that most of the parents could not read and write English, and hence they were unable to support their children at home. However, as is common of low-income households in developing countries like India, the parents are very aspirational and want their children to learn English from a very young age, and hence they spend up to 10 percent of their household income to send their children to low-fee private schools. However, at times these expectations also put undue pressure on the children and the schools as parents are keen to hear their children speak in English before they can even learn their mother tongue (the first language spoken at home) well. This fact was noted by the teachers as well as the school leaders that the parents often expected their children to speak and write in English very early, but it was a challenge to achieve this as the children did not have an environment at home where they could practice English. This further proved that the case study school was catering to a parent profile that was very similar to other low-income households in India in terms of their aspirations and expectations.

The preprimary coordinator commenting on the parent profile,

“Actually to be frank, here the parents are uneducated, 100 percent they believe in the teachers only, for everything, for discipline wise also, for proper eating also, proper speaking also they ... (unclear). 99 percent of the parents they used to come and tell the same thing. We cannot do anything for that only we have just given our children in your hands. I am uneducated I cannot teach like that. So their expectation is at least the children should be able to speak properly in English, they should say something in English, they will be happy by hearing that. That one and they should be able to read books on their own. Lower grades parents they are expecting this is

the only thing: they should read on their own, they should speak English up to some extent.”

The case study school differed from most typical low-fee private schools in that the founders of the school (the correspondent and the principal) were both working as teachers before they decided to start this school. Therefore, they came with some background in education and an understanding of teaching and learning practices when they started the school. This is unlike most low-fee private schools where the school owners are businessmen who look at the school as an investment rather than a service. Moreover, the 24-year history of the school also places this school in a period when low-fee private schools were just beginning to show up in developing countries around the globe. In contrast, many of the low-fee private schools have only come up in the last 10 years. The long history of the school was evident in the permanent infrastructure that the school boasted of compared to the rented spaces that are typical of most low-fee private schools. However, this came at the cost of high-interest loans that the school was still paying off. Nevertheless, the advantage of having permanent infrastructure was that the school had received recognition from the government, making it easier for the school to function. However, the school leaders did call out that as a low-fee private school, the school was not affected significantly by changes in the norms and regulations of the state education board as the level of the government intervention and inspection was quite low in such schools. For instance, while recognized schools are supposed to follow the curriculum and books prepared by the state education board (called as Samacheer), the case study school was using an education intervention by Xseed for the preprimary grades and for grades 1 to 8 as the government officials were not very particular about this.

The assistant school leader on how government regulations impact the school,

“Actually there is a government fixed syllabus called ‘Samacheer syllabus.’ But it starts only from first standard. But... government... at least in our schools and all, government is not very particular about the curriculum and what we follow. They are mostly concerned about it only in the higher grades like tenth and twelfth standard. But before that even in meetings my father [correspondent] has told me that they [government education officials] have given complete leeway to... uh... teach whatever we want from the school side.”

Nevertheless, the overall context of the case study school was comparable to that of most low-fee private schools in that it catered largely to the low-income households in the area and hence had to cope with the associated challenges such as irregular fee collection, fee defaults, unsupportive parent body, and other challenges associated with first-generation learners. However, the school leaders and the teachers seemed to be managing these challenges well and worked together to offer good quality ECE at an affordable cost.

5.3 Document review

As noted earlier, and as is typical of low-fee private schools, documentation at the case study school was poor. There were no meeting minutes available or any documentation on the teacher training sessions or visits to the model low-fee private schools. Nevertheless, the researcher was able to access some documents pertaining to lesson plans, both the ready-to-use lesson plans provided by the education intervention—Xseed, as well as the customized lesson plans written by the preprimary teachers. Additionally, the researcher also had access to the school's website which contained information on the history and context of the school, the school's vision, fee details, the school's newsletter, updates as well as blogs on various events organized at the school and other relevant information. Although this information was less than what was anticipated, it helped triangulate some of the key findings from the in-depth interviews as well as from the classroom observations. This section gives a brief description of the above-mentioned documents and website pages.

5.3.1 Lesson plans by education intervention

The education intervention company—Xseed—had provided the teachers with a detailed teachers' guide with daily lesson plans organized by monthly themes such as 'earth and space' and 'living together.' The sequence followed the model prescribed in the National ECCE curriculum framework which is to start with awareness about self (personal identify, parts of the body, family members), before moving on to the community and environment (community helpers, social structures, plants and animals), and then to the country (about India), and finally to the planet and outer space (other countries, earth, solar system).

The daily lesson plans were sub-divided into subject lessons of 35 minutes each for English, Mathematics, and Themes (science and social studies) topics. The instructions in the plans were prescriptive and the teachers were expected to sequentially implement these daily lesson plans. Each plan included the following sub-sections: aim, action, analysis, application, and assessment. The five sub-sections are briefly described in table 6 below with examples from an English lesson for senior KG from the week of the classroom observations.

Table 6. Five sub-sections in the lesson plans by Xseed Education

Sub-section	Description of sub-section	E.g., from lesson plan
Aim	Clearly laid out the learning outcomes that the children were expected to demonstrate at the end of the lesson.	<i>Students will be able to blend and segment sounds of one-syllable spoken words.</i>
Action	Step-by-step instructions for the teachers with each instruction either labeled with a verb or starting with a verb denoting the action required of the teacher	<p>Show the picture of a <u>kit</u>.</p> <p>Name the thing shown in the picture.</p> <p>Display the word card '<u>Kit</u>' with the picture on the word wall.</p> <p>Say the word again, stretching the vowel sound: /ck/iiii/t/.</p> <p>Instruct: Repeat the sound along with me. Repeat several times.</p> <p>Ask: How many sounds of letters did you hear in the word 'kit'? (3)</p> <p>Which sound did we say the longest? (/i/) Which sound did we say first? (/ck/) Which sound did we say last? (/t/)</p>
Analysis	Instructions for the teacher on how to explain the concept further to the children through a question and reflection exercise	Instruct: Look at the words on the word wall. Tell what is same in all the words.

		Conclude: All the words have the letter ‘i’ in the middle and the letter ‘t’ at the end. This means that they have the /i/ sound in the middle and the /t/ sound in the end.
Application	Contains instructions for additional practice work for the children to help reinforce as well as apply the concept learned earlier	Instruct: We will read the ‘it’ group word cards together and then alone. Copy the words in your notebook. Say the sound of each letter when writing. Notebook (Suggested Homework): Write the ‘it’ group words: <u>kit, pit, lit, hit, sit, fit, bit</u>
Assessment	Contains on how the teacher could assess if the children were demonstrating the learning outcome laid out in the aim	Review notebook work to assess if the students can blend and segment sounds of one-syllable spoken words.

Given that these lesson plans were very detailed and prescriptive, there seemed to be no need for the teachers to separately prepare lesson plans. Nonetheless, the preprimary teachers were required to write their own lesson plans and get it signed by the preprimary coordinator before the start of each week. The next section presents a review of the teachers’ handwritten lesson plans and highlights the similarities and differences between the lesson plans prepared by the education intervention company and the lesson plans prepared by the teachers.

5.3.2 Lesson plans prepared by the preprimary teachers

Most of the lesson plans prepared by the teachers were identical to the lesson plans prepared by the education intervention company. Each lesson plan had the same five sub-sections, namely aim, action, analysis, application, and assessment. While the instructions under each sub-section were the exact same sentences used in the ready-made lesson plan, a few of the instructions were often omitted in the teachers’ lesson plans. The missing instructions largely seemed to be instructions directed at the teacher such as ‘**Show...**’ and ‘**Draw...**’ while the

instructions included in the teachers' lesson plans seemed to be instructions directed at the students such as '*Ask: How many sounds did you hear...?*'

Apart from this, the teachers' versions also seemed to have omitted all learning activities that involved materials that the teachers did not have access to (e.g., an English lesson plan required sandpits to practice writing the letter 'm' in the sand) as well as all activities that involved grouping the children into pairs or small group (e.g., a Math lesson plan required children to work in pairs to recall before and after numbers for numbers from 1 to 10). Instead, the teachers only included easy-to-do activities such as writing the shape of the letter 'm' in the air and whole-class activities such as writing the missing numbers in their notebooks for the sequence of numbers written by the teacher on the blackboard.

The other key differences between the two versions was the addition of a specific date on which the lesson plan would be implemented in the teachers' version, the use of block numbers (e.g., BLOCK No.10) in the teachers' version instead of broad themes (e.g., Living Together), and the explicit labelling of the assessment section as homework in the teachers' version. Moreover, the four teachers did not follow the same format for creating their lesson plans, with some of the teachers writing the lesson plans for different subjects on different pages and other teachers writing all the lesson plans for a particular day on the same page with the plans for different subjects written in separate columns on that page.

5.3.3 School's website

Brief history and context of school

The 'About Us' page on the school's website confirmed the following information about the school: (1) the school was established by the correspondent and the principal (husband and wife duo) in 1995; (2) the school is a private un-aided school; (3) the school largely caters to the low-income households in its vicinity; and (4) the school currently uses Xseed's education intervention for the preprimary grades as well as for grades 1 to 8.

Overall, there wasn't much information on the school's website, and the website did not seem to have been updated between August 2016 and September 2018, which aligns with

the assistant school leader's statement in late October 2018 that he had recently updated the school's website. This is typical of most low-fee private schools which may have websites, but do not have a dedicated resource person to regularly update the school's website.

Vision and goals of the school

The vision page on the school's website presented a detailed description of what the school stood for. However, as called out by the assistant school leader, the vision page was recently updated by him and it represented his vision for the school and not necessarily the vision set by the founders. In brief, the published vision of the school was to 'create socially conscious and empowered individuals who are driven by values.' Taking all these into account, a review of the vision on the website reinforces the finding that the various stakeholders in the school did not have a shared understanding of the school's vision.

In terms of goals, while the website did not explicitly call out any goals, it presented the following items as the ways in which the school was striving to achieve its vision.

1. *Inculcating a positive and safe environment for enabling the children to be self-initiators and active participants*
2. *Making the school be more connected with the outside world to enable better resource sharing, exposure to the children and also to contribute to the betterment of the society*
3. *Stimulating an environment which is friendly to the teachers in driving and assisting them to empower and strengthen the values of the students*
4. *By providing facilities such as library, computer lab, playground, etc., which will empower the children in various facets*
5. *Harmonizing an ecosystem which facilitates continuous learning for teachers and students from the sources not just confined to the 'boundaries' of the school*

As mentioned earlier, while these are not necessarily goals, many of these points came out during the in-depth interviews, particularly when describing the school's culture such as the continuous professional development of the teachers and the enabling school culture.

Fee structure to validate selection criteria

The published fee structure for the preprimary grades confirms that the school is indeed a low-fee private school that charges an all-inclusive fee of INR 15,100 per annum for junior KG and INR 18,460 per annum for senior KG. The fee structure document available on the website (see appendix 7) notes that the total fee was inclusive of an ‘annual enrollment fee that is collected in the beginning of the year to meet the large annual expenses incurred by the school such as purchasing textbooks, notebooks, vehicle maintenance, school infrastructure building, etc.’ and that the ‘monthly fee is collected every month to meet the monthly expenses’ such as teachers’ and staff salaries, utility costs, etc. Interestingly, the fee document also calls out that the school offers concessions on both the enrollment fee as well as the monthly fee based on the financial situation of the families. It is quite common among low-fee private schools to have flexible fee structures as they function better on economies of scale (greater enrollments) than on higher unit costs (fees). In contrast, mid-market and high-end schools rarely offer fee concessions to parents as they rely more on unit costs. The breakdown of the fee per annum is as given in table 7 below.

Table 7. Fee structure for the preprimary grades at the case study school

Grade	Annual Enrollment Fee (in INR)	Monthly Fee (in INR)	Total all-inclusive fee per annum (in INR)
Junior KG	8,500	550	15,100
Senior KG	11,500	580	18,460

Newsletter and blog posts

The website also hosted a digital version of the school’s newsletter as well as a few blog posts on events which took place at the school. As noted earlier, there were no updates on the website between August 2016 and September 2018. However, since September 2018 the website has been updated with 16 new blog posts. This is in contrast to just 4 blog posts that were uploaded to the website since it was launched in early 2016.

A review of the September 2018 newsletter threw light on the beliefs of the school leaders and some of the teachers on good pedagogies as well as the importance of early childhood education. For instance, the featured article carried a write-up on early childhood education

by the school's principal in which she called out the importance of early environments on the development of children's brains and also called for greater freedom to 'learn and explore' during the early years 'without actually having to put all that learning to work.' The write-up quotes various researchers in the field of neuroscience, indicating that the principal was not only well-read but also deeply interested in the field of early childhood education. A couple of other interesting pieces by the staff include a brief write-up on the importance of higher-order thinking by an English teacher and a perspective piece on parenting by the correspondent. The newsletter also contained various articles and artwork by the students.

Moving on to the blog posts, the most interesting piece was a photo journal documenting the creating of the children's park—'The Park of Joy.' The creation of the park a few months after the visit to the school by the researcher during which he shared feedback that the children needed to have more free-play and outdoor playtime not only reflected the openness and responsiveness of the school leaders to feedback and ideas from others, but it also reflected the ingenuity of the school leaders in creating a children's park by upcycling waste materials such as discarded vehicle tires sourced from the community.

The blog posts also threw light on other key events at the school such as the workshop on the menstrual cycle by Sukhibhava Foundation and a mental health awareness talk by doctors from Karpaga Vinayaga Medical College. While the blog posts mention that these two events were organized for the students, when talking about the various types of trainings that the school organized for teachers the assistant school leader had also called out that the school had arranged for the teachers to attend training sessions by these organizations.

6 Discussion

This research study set out to understand how a typical low-fee private school in urban South India worked to achieve good quality ECE environment. The findings from the analysis of the various data sets collected during this study not only document the good quality of the ECE environment in the preprimary grades of the case study school, but they also allude to the key drivers of this good quality ECE environment. This chapter begins by discussing some of these key findings and attempts to situate the findings using the pattern matching logic (Trochim, 1989) to compare the seven themes which emerged from the in-depth interviews with the research propositions presented in chapter 3 of this report. The second section of this chapter then discusses the relevance of these findings for achieving good quality ECE in the context of low-fee private schools in India as well as in other developing countries.

6.1 Situating the findings using the pattern matching logic

Research proposition 1:

P1: the preprimary teachers in the case study school are highly motivated and are more capable (understand the basic principles for ECE and are aware of developmentally appropriate pedagogy for early years)

The proposition that the preprimary teachers in the case study school were highly motivated and also more capable than typical low-fee private school teachers was validated in the study. As presented in the previous chapter, the strong motivation of the teachers was evident in the strong locus of control that the teachers had as well as in their strong self-efficacy and positive expectations of students (Rowan et al., 1996). In fact, the impact of their strong motivation is evident in the level of planning and preparation for their lessons. Moreover, the motivation of the teachers also seemed to influence their decision to develop professionally, both formally in the pursuit of teacher training courses and higher education, and informally by learning from friends and colleagues as well as from videos on YouTube.

In terms of ability, the teachers not only demonstrated a better understanding of ECE but they were also aware of the appropriate pedagogy for early years. Their ability was further demonstrated in the good quality ECE environment in their classrooms as documented in

the TECERS scores. However, what's interesting is that none of these teachers started out any different from the typical low-fee private school teacher: none of them had any training nor relevant experience in ECE when they joined the school. Moreover, none of them had chosen this profession or the early grades because they were passionate about it. Nevertheless, what differentiated these teachers was their desire and openness to learning, which in combination with the school leaders' focus on professional development and the supportive and enabling school culture transformed these teachers from ordinary low-fee private school teachers to highly motivated and more capable low-fee private school teachers. This segues naturally to the second research proposition which was also validated in the study.

Research proposition 2

P2: the work situation at the case study school is better than that in the average low-fee private school (viz. workload, support from school leadership, remuneration, etc.)

The school culture of the case study school can be best described as supportive and enabling. The teachers not only enjoyed greater freedom and flexibility to plan and teach as they seemed fit, but they were also given adequate support by the school leaders to implement their ideas and also develop professionally through regular training and visits to other model low-fee private schools. The support of the school leaders is best exemplified in the discrete and protected planning time that the teachers enjoyed every Saturday to plan and prepare for their classes in the week ahead. This is quite unlike the work culture in typical low-fee private schools where teachers are expected to make time from planning on their own, and this often does not happen as the only time teachers have for planning is after school hours and teachers usually have to rush home after work to attend to their household chores.

Another distinctive aspect of the school culture which emerged from the data was the recognition and appreciation that the preprimary teachers in the case study school received, specifically from the school leaders, but also from other teachers and parents of students. In fact, the culture of appreciation, along with the freedom to teach and the supportive leadership, was mentioned by the teachers as the key reason for remaining with the school. Preprimary teachers in low-fee private schools are often the least paid and least recognized teachers in the grand scheme of things in the school. Therefore, the quality of the preprimary teachers in low-fee private schools is generally poor and the attrition rate is quite high. However, the

school leadership at the case study school explicitly recognized and appreciated the efforts of the preprimary teachers and also rewarded them with material gifts and a slightly better remuneration compared to the average salaries in typical low-fee private schools.

The third distinguishing aspect of the school culture was the level of collaboration between the preprimary teachers and also between the teachers and the school leaders. Unlike preprimary teachers in typical low-fee private schools who work largely on their own, the preprimary teachers in the case study school organically formed grade-specific micro-communities of practice which were then consolidated into a larger preprimary teachers' community of practice. Moreover, the school leaders also consciously made an effort to collaboratively work with the preprimary teachers on creating term goals and selecting the publisher for the books to be used for specific grades. Not only was the teachers' opinion actively solicited, but it was also respected and valued, particularly when there were disagreements.

Research proposition 3

P3: the external environment does not have any significant impact on the effectiveness of the preprimary teachers in the case study school

In brief, the external factors that seemed to have the most effect on teachers' effectiveness in typical low-fee private schools did not seem to have any significant impact on the preprimary teachers in the case study school. The most significant of these external factors is the parents' expectations of the school. Generally, low-fee private school teachers feel disempowered in the face of parents' demands, which often stem from unrealistic expectations. On one hand, they do not feel qualified to counter or pushback on these demands, while on the other hand, they do not enjoy the support of the school leaders who often side with the parents as they are afraid of losing enrollments. However, in the case study school, none of these factors were true as the teachers not only felt more empowered, but they also enjoyed the support of the school leaders who shielded the teachers from the unrealistic demands of parents. Typical expectations of parents include more writing homework, the use of English by the teachers in the classroom, and for the children to only speak in English. However, as observed in the classrooms, the teachers used the local language most of the time in the classrooms, gave minimal homework, and did not force the children to speak in English.

The second key external influence on teachers' effectiveness is government regulations such as the mandate that all teachers must complete a teacher training course in order to retain their jobs as teachers. However, as noted by the school leadership, such government mandates and regulations did not have any impact on the functioning of low-fee private schools.

Research proposition 4

P4: the school leaders influence the preprimary teachers' effectiveness by (i) creating efficient academic structures and processes (improving work situation); (ii) supporting teachers through regular training, monitoring, and feedback (improving teachers' abilities); (ii) building a shared vision and setting clear goals (motivating teachers)

The findings from the study validated the first two points of the fourth research proposition. The school leaders at the case study school not only proactively created better working conditions for the teachers (e.g., protected planning time, a culture of appreciation, learning, and collaboration), but they also supported the teachers through frequent training, visits to model low-fee private schools, and systematic monitoring and feedback by the various coordinators. Moreover, the school leaders consciously chose to hire teachers with the right attitude towards children and an openness to learning on the job instead of focusing solely on qualifications, thus helping create a community of like-minded and growth-oriented teachers. However, on the third point, although the school leaders thought they had built a shared vision and had set clear goals for the school, the various stakeholders at the school did not have a shared understanding of the school's vision and goals. Moreover, the different tonality with which the school leaders and the teachers spoke when referring to the school's vision and goals further indicated a lack of ownership of the vision by the teachers.

Research proposition 5

P5: leadership in the case study school does not reside in a single school leader's characteristic, skill, or knowledge (Spillane, 2005; Spillane et al., 2004), but instead it is distributed among various staff members, formally and informally

The fifth proposition was also validated in the study as the school had a distribution of leadership roles and responsibilities, formally in the roles of the assistant school leader and the various coordinators (senior teachers) responsible for different grades, and also informally

as the senior teachers took up the task of guiding and training the junior teachers. The proactive distribution of the leadership roles and responsibilities among senior teachers not only frees up the principal's time to focus on more targeted responsibilities, but it also helps build leadership capacity in the school and therefore reduces the dependency on a single school leader to manage the school as is often the case in typical low-fee private schools. Moreover, by distributing the leadership among senior teachers, the school owners also signaled the growth prospects for high performing teachers, thus motivating them to develop professionally as well as remain with the school in order to build seniority. Additionally, even at the top of the formal hierarchy, the school owners seemed to have split their responsibilities with a clear demarcation of the roles and responsibilities of the correspondent and the principal. This is again unlike the situation in typical low-fee private schools where the leadership is concentrated in one or two individuals who are usually the owners of the school.

Rival proposition 1

RPI: The quality of the preprimary grades is driven largely by an education intervention partner and not by motivated teachers or strong school leaders

While the school was using an education intervention by Xseed Education for the preprimary grades, the education intervention alone did not seem to be the key driver of the good quality ECE environment in the case study school. For one, the intervention was recently introduced in the school and the teachers were still getting used to the intervention. Secondly, the key drivers that emerged from the study seemed to be in place even before the introduction of the education intervention in the academic year 2018-19. For instance, even before the introduction of the intervention, the teachers used to write their own lesson plans in advance as instructed by the principal and guided by the senior teachers. Moreover, all the teachers had enrolled for teaching training courses or for higher education well before the introduction of the intervention, and have also received relevant training at the school even before the training by the intervention partner. In fact, the school had an informal teacher training model in place that dates back at least 5-6 years, which is when all of the preprimary teachers joined the school and underwent a 3 to 6 months induction training at the school.

Rival proposition 2

RP2: The Null Hypothesis – There are no clear drivers which explain the good quality of the preprimary grades in the case study school.

Similarly, the null hypothesis has also been invalidated as the study's findings explicitly point to several drivers which could have a positive impact on the quality of the preprimary grades in the case study school. In other words, the good quality of the preprimary grades in the case study school is not a statistical fluke or a result of some random chance of events which resulted in the good quality of the ECE environment on the day of the observations.

6.2 Relevance of the findings for good quality ECE in low-fee private schools

The findings underscore the possibility of achieving good quality ECE even in low-fee private schools without significantly altering the budget of the school. One of the key concern areas in the context of low-fee private schools has been the unqualified and untrained workforce. However, findings from this case study point to an alternate model where the school works to build capacity in untrained teachers. However, there are two critical prerequisites for the success of this model: (1) the school must hire teachers with the right attitude towards children and an openness to learning on the job above everything else; and (2) the school needs to have strong leadership in place that is focused on learning as much as profitability.

While the first point is fairly straightforward to implement, good school leaders willing to work in low-fee private schools are harder to come by than good teachers. Fortunately, the findings point to the success of building leadership capacity within the pool of senior teachers. Similarly, the findings also show a positive effect of a distributed leadership model as well as 'communities of practice' based on 'voluntary collaboration on the children's learning' (Hargreaves and Fink (2008, p. 229)). However, all of these processes are interlinked and still require at least one good school leader to initiate a chain reaction by first hiring and training the right teachers and then gradually building leadership capacity in some of these teachers who can then take on leadership responsibilities and also build various communities of practice within the school. A solution to this second problem is beyond the scope of this research study and perhaps this is a question that needs to be answered through further research.

7 Ethical considerations

Due to the lack of any association in India exclusively devoted to the code of conduct in education research, the researcher relied on a combination of the codes of conducts from two commonly referenced associations in the field of education: the American Educational Research Association (AERA) (2011) and the British Educational Research Association (BERA) (2011). The researcher also referenced the SERA-SEED Starting Points for Research in Schools (2007) to guide the ethical considerations in this research study.

As mentioned in the BERA Ethical Guidelines for Educational Research (2011), the researcher has certain responsibilities towards not just the research participants (which is of critical importance), but also towards the sponsors of the researcher (in this case, the University of Oulu, Finland), towards the community of educational researchers, and towards the educational professionals, policymakers, and the general public. The following sub-sections explain the various measures taken to fulfill these responsibilities.

7.1 Responsibilities to participants

In accordance to the guidelines, the researcher first drafted informed consent forms which clearly identified the purpose (to fulfill the requirements of a master's degree program at the University of Oulu, Finland) and the objective (to understand how the case study school worked to achieve good quality ECE environment in its preprimary grades) of the research and also clarified that the participation was voluntary and that the participants had a right to refuse participation and that refusal did not deny the participants any benefits they were otherwise entitled to at the school. Explicit consent to observe the preprimary classrooms was also added to the consent forms of the teachers. On similar lines, a separate consent form was drafted for seeking permission for using the school as a case in the research study and this consent form was signed by the principal/ owner of the school.

The participants were also promised anonymity in the report as well as the confidentiality of the responses shared with the researcher. Given that the research study involved a translator who would have access to the interview data, a separate confidentiality agreement was

signed with the translator according to which the translator agreed to (1) maintain the confidentiality of data, and (2) not store or retain any data post the process of translation. Sample informed consent forms, the permission for research, and the confidentiality agreement are available in appendices 9-11 of this report for the reference of other researchers and readers.

Additionally, as the classroom observation involved sharing a space with children between the ages 4 and 6 years, the researcher sought to take informed consents from the parents of these children. However, the school leadership informed the researcher that this task may be difficult to complete as the researcher would have to individually meet the parents of the about 160 students and explain about the research study as it would be challenging to get all the parents to come to the school at an appointed time. This would have delayed the classroom observations significantly, if not altogether making it impossible to carry out. Furthermore, after carefully considering that the researcher would not be interacting with any of the students during the classroom observation and that he would always be accompanied by the preprimary teachers during the classroom observations, it was proposed that the researcher instead seek the collaboration and approval of the preprimary teachers who were responsible for the welfare and well-being of the students at the school. This is in line with the AERA (2011, p. 151) provision for waiver of parental or guardian consent when (i) the research involves no more than minimal risk for the research participants (the researcher would not be interacting with the students), and (ii) the research could not practicably be carried out were consent to be required (the challenge of individually explaining the research study to about 160 parents and getting their informed consent to observe their child's classrooms).

Responsibilities to sponsors of research

While there was no funding or monetary exchange involved, the researcher has certain responsibilities to the University of Oulu as well as to the supervisor of the research study provided by the university, the first of which was to keep the supervisor and the university informed about the intended research topic and research question as well as about the progress of the research throughout the course of the study. Secondly, the researcher was also responsible for employing appropriate methods that fit the purpose of this research study, and for ensuring that the data collection and analysis techniques, as well as the inferences drawn from the findings, are reliable, valid and generalizable (BERA, 2011, p. 9).

Responsibilities to the community of educational researchers

The researcher read and understood the ethical guidelines for educational research (AERA and BERA) before starting this research study. He has endeavored to conduct this research study to the highest standards set in these guidelines, thereby upholding the integrity and high standards of the research community, particularly that of the community of educational researchers, including academics, professionals, teachers, and students (BERA, 2011, p. 9).

Responsibilities to educational professionals, policymakers and the general public

The researcher has consented to make public the results of this research study through the University of Oulu, Finland. Furthermore, the researcher has endeavored to communicate the findings of this study in a clear, straightforward manner and in language that is deemed appropriate to the intended audience (BERA, 2011, p. 10).

7.2 Conflict of interest

The researcher promptly disclosed the intention of carrying of this research study to his manager at FSG, India and also informed him that the study was being carried out in a school that had no relation to either PIPE or to any of PIPE's eight partner education companies. The researcher further clarified to his manager that the study would be carried out in the researcher's personal time and in no way would PIPE or FSG be involved in the research. The researcher chose not to carry out the case study at one of the PIPE pilot low-fee private schools with good quality ECE environment in the preprimary grades: firstly, to avoid any influence of PIPE in the formulation of the research questions or the design of the research study; and secondly, to avoid the 'Hawthorne effect' (Levitt & List, 2011) as the PIPE pilot schools were already subject to multiple rounds of research, including qualitative interviews, and hence the intended informants could be biased in their responses and attempt to provide responses in line with the earlier rounds of interviews which focused on the changes brought about in these schools by the PIPE partner education companies. The researcher also chose not to conduct the research study in a low-fee private school using one of the PIPE partner education company's ECE interventions as that could have called to question the objectivity of the findings on one hand, while jeopardizing PIPE's relationship with that particular education company on the other hand, depending on the findings of the research study.

8 Conclusion

The research propositions postulated at the start of the study coincided with the findings of the study, thus lending strength to its internal validity. Moreover, since the design of the case study was based on established conceptual frameworks (Rowan et al., 1996; Hallinger, 2010), the findings of the study also lend validity to these frameworks in the context of low-fee private schools in urban India. However, the factors (motivated and capable teachers, and leadership for learning) that emerged as key drivers of good quality ECE in the case study school could have local relevance and therefore they may not be related to the process or structural based features that are thought to be universal (Yoshikawa & Nieto, 2013). Hence, it is recommended that a similar type of focused case study may be replicated in diverse contexts to identify the local factors that may be contributing to the good quality ECE in low-fee private schools in other developing countries or even in other parts of India for that matter as India is a vast country with a very rich socio-cultural diversity.

References

- Aggarwal, Y. (2000). Public and Private Partnership in Primary Education in India: A study of unrecognised schools in Haryana (New Delhi: National Institute of Educational Planning and Administration).
- Akaguri, L. (2013). Fee-free public or low-fee private basic education in rural Ghana: How does the cost influence the choice of the poor? *Compare: A Journal of Comparative and International Education*, 44(2), 140-161. doi:10.1080/03057925.2013.796816
- Akyeampong, K. (2009). Public–private partnerships in the provision of basic education in Ghana: Challenges and choices. *Compare*, 39: 135–50.
- Alderman, H., Orazem, P. F., & Paterno, E. M., (1996). School Quality, School Cost, and the Public/Private School Choices of Low-Income Households in Pakistan. World Bank Working Paper Series on Impact Evaluation of Education Reforms, No. 2, December 1996
- Alderman, H., Orazem, P. F., & Paterno, E. M. (2001). School Quality, School Cost and the Public/Private School Choices of Low-Income Households in Pakistan. *Journal of Human Resources* 36(2): 304-326.
- Alderman, H., Kim, J., & Orazem, P. F. (2003). Design, evaluation, and sustainability of private schools for the poor: the Pakistan urban and rural fellowship school experiments, *Economics of Education Review*, 22, 265-274.
- Anders, Y., Rossbach, H.-G., Weinert, S., Ebert, S., Kuger, S., Lehl, S., & von Maurice, J. (2012). Home and preschool learning environments and their relations to the development of early numeracy skills. *Early Childhood Research Quarterly*, 27(2), 231-244. doi: 10.1016/j.ecresq.2011.08.003
- Arenas, A. (2004). Privatization And Vouchers In Colombia And Chile. *International Review of Education/ Internationale Zeitschrift Fr Erziehungswissenschaft/ Revue Inter*, 50(3), 385-400. doi:10.1007/s11159-004-2629-z
- Aslam, M., Kingdon, G., De, A. & Kumar, R. (2010) Economic returns to schooling and skills: an analysis of India and Pakistan. In *Education Outcomes and Poverty in the South* (Ed C. Colclough), London: Routledge.
- Baird, R. (2009). Private schools for the poor: Developments, provision, and choice in India, Atlanta, GA: Gray Matters Capital. A report for Gray Matters Capital

- Bangay, C. (2007) Cinderella or Ugly Sister? : What role for Non-State Education Provision in Developing Countries? In P. Srivastava & G. Walford. Private Schooling in Less Economically Developed Countries: Asian and African perspectives, Symposium Books
- Barth, R. (1990). Improving Schools from Within, Jossey-Bass, San Francisco, CA.
- Basu, A. (1982). Essays in the history of Indian education. New Delhi: Concept.
- Baum, D., Lewis, L., Lusk-Stover, O., & Patrinos, H. (2014). What Matters Most for Engaging the Private Sector in Education: A Framework Paper. Washington DC: World Bank.
- Bell, L., Bolam, R., & Cubillo, L. (2003). A systematic review of the impact of school headteachers and principals on student outcomes. London: EPPI-Centre, Social Science Research Unit, Institute of Education.
- Behrman, J. R., Calderon, M. C., Preston, S. H., Hoddinott, J., Martorell, R., & Stein, A. D. (2009) Nutritional supplementation in girls influences the growth of their children: prospective study in Guatemala. *Am J Clin Nutr* 2009; 90: 1372–79.
- Black, M. M., Walker, S. P., Fernald, L., Andersen, C. T., DiGirolamo, A. M., Lu, C., ... Lancet Early Childhood Development Series Steering Committee (2016). Early childhood development coming of age: science through the life course. *Lancet* (London, England), 389(10064), 77–90. doi:10.1016/S0140-6736(16)31389-7
- Bourgeois, J.P. (1997). Synaptogenesis, heterochrony and epigenesis in the mammalian neocortex. *Acta Paediatrica*, Supplement 422, 27-33. 13.
- Brinkman, S., T. Gregory, J. Harris, B. Hart, S. Blackmore, and M. Janus. 2013. “Associations Between the Early Development Instrument at Age 5, and Reading and Numeracy Skills at Ages 8, 10 and 12: A Prospective Linked Data Study.” *Child Indicators Research* 6: 695–708. doi: 10.1007/s12187-013-9189-3
- Britto, P.R., Yoshikawa, H., & Boller, K. (n2011). Quality of early childhood development programs in global contexts rationale for investment, conceptual framework and implications for equity. *Social Policy Report*. 25. 1-31.
- Brotherson, S. (2009). "Understanding Brain Development in Young Children, FS-609." n.d. NDSU Extension Service. April 2009.
- Burrell, G. and Morgan, G. (1979). Sociological paradigms and organisational analysis. London: Heinemann.

- Bush, T. & Glover, D. (2003). School Leadership: Concepts and Evidence, [www.ncsl.org.uk/literature reviews](http://www.ncsl.org.uk/literature%20reviews).
- Campbell, F. A., & Ramey, C. T. (1994). Effects of early intervention on intellectual and academic achievement: A follow-up study of children from low-income families. *Child Development*, 65(2), 684-698.
- Campbell, F., Conti, G., Heckman, J. J., Moon, S. H., Pinto, R., Pungello, E., & Pan, Y. (2014). Early childhood investments substantially boost adult health. *Science* (New York, N.Y.), 343(6178), 1478–1485. doi:10.1126/science.1248429
- Chand, D. (2015). Education system in pre-independence India. *International Journal of Applied Research*. 2015; 1(2): 110-113
- Cheng, Y.C. (1997). The transformational leadership for school effectiveness and development in the new century.
- Chimombo, J. (2009). Expanding post-primary education in Malawi: Are private schools the answer?. *Compare*, 39: 167–84.
- Chudgar, A., & Quin, E. (2012) Relationship between private schooling and learning: Results from rural and urban India, *Economics of Education Review*, 31(4), 376–39.
- Clarke, S. & Tom O'Donoghue, T. (2017). Educational Leadership and Context: A Rendering of an Inseparable Relationship, *British Journal of Educational Studies*, 65:2, 167-182, DOI: 10.1080/00071005.2016.1199772
- Cohen, L., Manion, L., & Morrison, K. (2009). *Research methods in education*. London: Routledge. 77
- Court, M. R. (2003a). *Different approaches to sharing school leadership*. Nottingham, UK: National College for School Leadership.
- Court, M. R. (2003b). *Towards democratic leadership: Co-principal initiatives*. *International Journal of Leadership in Education*, 6(2), 161–183. doi:10.1080/13603120304823
- Creswell, J. W. (2007). *Qualitative inquiry and research design* (2nd ed.). Thousand Oaks: Sage.
- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*. 4th ed. Thousand Oaks, California: SAGE Publications.
- Creswell, J., & Miller, D. (2000). Determining Validity in Qualitative Inquiry. *Theory Into Practice*, 39(3), 124-130. doi: 10.1207/s15430421tip3903_2
- Crotty, M. (1998). *The foundations of social research*. London: Sage Publications.

- Cryer D, Harms T, Riley C. All about the ECERS-R. Kaplan; Lewisville, NC: 2003.
- Courchesne, E., Chisum, H. J., Townsend, J., Cowles, A., Covington, J., Egaas, B., Harwood, M., Hinds, S., & Press, G. A. Normal brain development and aging: quantitative analysis at in vivo MR imaging in healthy volunteers. *Radiology*. 2000;216:672–682.
- Day Ashley, L., Mcloughlin, C., Aslam, M., Engel, J., Wales, J., Rawal, S., Batley, R., Kingdon, G., Nicolai, S., & Rose, P. (2014). *The Role and Impact of Private Schools in Developing Countries: A Rigorous Review of the Evidence*, London: Department for International Development.
- Day C., Sammons P., Harris A, Hopkins D., Leithwood K, Gu Q., & Brown E., 2010. *Ten Strong Claims for Successful School Leadership in English Schools*. Nottingham: NCSL.
- Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., Brown, E., Ahtari-dou, E. & Kington, A. (2009), *The Impact of School Leadership on Pupil Outcomes: Final Report*, UK Department for Children, Schools and Families Research.
- De, A., Majumdar, M., Samson, M., & Noronha, C. (2002). Private Schools and Universal Elementary Education, in Govinda, R. (ed.) *India Education Report: A Profile of Basic Education*, Oxford and New Delhi: Oxford University Press, pp. 131 – 150.
- Desai, S., Dube, A., Vanneman, R., & Banerji, R. (2008). ‘Private Schooling in India – A New Landscape’, mimeo NCAER.
- Dixon, P. (2012). Why the Denial? Low-Cost Private Schools in Developing Countries and Their Contributions to Education. *Econ Journal Watch*. 9. 186-209.
- Dixon, P., & Tooley, J. (2005). The Regulation of Private Schools Serving Low Income Families in Andhra Pradesh, India. *Review of Austrian Economics* 18(1): 29-54.
- Doyle, O., Harmon, C. P., Heckman, J. J., & Tremblay, R. E. (2009). Investing in early human development: timing and economic efficiency. *Economics and human biology*, 7(1), 1–6. doi:10.1016/j.ehb.2009.01.002
- Drèze, J., & Amartya, K. S. (2002). India: Development and Participation. [http://lst-iiiep.iiep-unesco.org/cgi-bin/wwwi32.exe/\[in=epidoc1.in\]/?t2000=019861/\(100\).](http://lst-iiiep.iiep-unesco.org/cgi-bin/wwwi32.exe/[in=epidoc1.in]/?t2000=019861/(100).) 10.1093/acprof:oso/9780199257492.001.0001.
- Edmonds, R. (1979). *Effective Schools for the Urban Poor. Educational Leadership*. October 1979.
- Engle, Patrice L., Lia CH Fernald, Harold Alderman, Jere Behrman, Chloe O’Gara, Aisha Yousafzai, Meena Cabral de Mello, et al. 2011. “Strategies for Reducing Inequalities

- and Improving Developmental Outcomes for Young Children in Low-Income and Middle-Income Countries.” *The Lancet* 378 (9799): 1339–1353.
- Fisher, E. A. (1991) *Early Childhood Care and Education (ECCE): A World Survey*. Paris, France: UNESCO.
- Forster, G. (2013). *A Win-Win Solution: The Empirical Evidence on School Choice*. Third Edition. The Friedman Foundation for Educational Choice.
- Fox, S. E., Levitt, P., & Iii, C. A. (2010). How the Timing and Quality of Early Experiences Influence the Development of Brain Architecture. *Child Development*, 81(1), 28-40. doi:10.1111/j.1467-8624.2009.01380.x
- French, R., & Kingdon, G. (2010). "The relative effectiveness of private and government schools in Rural India: Evidence from ASER data," DoQSS Working Papers 10-03, Department of Quantitative Social Science - UCL Institute of Education, University College London.
- G. Vennila (2018). Role of missionaries in Indian education. *International Journal of Advance Research, Ideas and Innovations in Technology*, 3(4) www.IJARnD.com.
- García, J. L., & Heckman, J. J. (2016). The Life-Cycle Benefits of an Influential Early Childhood Program. *SSRN Electronic Journal*. doi:10.2139/ssrn.2884880
- Gertler, P., Heckman, J., Pinto, R., Zanolini, A., Vermeersch, C., Walker, S., ... Grantham-McGregor, S. (2014). Labor market returns to an early childhood stimulation intervention in Jamaica. *Science (New York, N.Y.)*, 344(6187), 998–1001. doi:10.1126/science.1251178
- Ghosh, S. C. (1995). Bentinck, Macaulay and the introduction of English education in India, *History of Education*, 1995, Vol. 24, No. 1, 17-24
- Goleman, D. (2002). *The New Leaders: Transforming the Art of Leadership into the Science of Results*. London: Little Brown.
- Gordon, R. A., Fujimoto, K., Kaestner, R., Korenman, S., & Abner, K. (2013). An assessment of the validity of the ECERS-R with implications for measures of childcare quality and relations to child development. *Developmental Psychology*, 49(1), 146-160.
- Gormley, W.T., Jr., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-K on cognitive development. *Developmental Psychology*, 41, 872-884.
- Gormley, W.T., Jr., Phillips, D., & Gayer, T. (2008). Preschool programs can boost school readiness. *Science*, 320, 1723-1724.

- Govinda, R., & Varghese, N.V., UNESCO-IIEP, & UNDP. (1993). Quality of primary school in India: a case study of Madhya Pradesh.
- Goyal, S. (2009). "Inside the House of Learning: The Relative Performance of Public and Private Schools in Orissa," *Education Economics*, 17(3), 315-27.
- Goyal, S., & Pandey, P. (2009). "How do Government and Private Schools Differ? Findings from Two Large Indian States,": South Asia Human Development Sector Report 30, World Bank, Washington DC.
- Grantham-McGregor, S., Cheung, Y. B., Cueto, S., Glewwe, P., Richter, L., Strupp, B., & International Child Development Steering Group (2007). Developmental potential in the first 5 years for children in developing countries. *Lancet (London, England)*, 369(9555), 60–70. doi:10.1016/S0140-6736(07)60032-4
- Gray Matters Capital. (2012). Affordable Private Schools (APS) Sector Analysis Report-2012 by Gray Matters Capital (2012)
- Gronn, P. (2002). *Distributed Leadership as a Unit of Analysis. The Leadership Quarterly*. 13. 423-451. 10.1016/S1048-9843(02)00120-0.
- Gronn, P. (2003). *The New Work of Educational Leaders: Changing Leadership Practice in an Era of School Reform*, Sage Publications, London.
- Guba, E.G. (1990). The alternative paradigm dialog. In E.G. Guba (ed.), *The paradigm dialog* (pp.17-30) Newbury Park, CA: Sage
- Guba, E., & Lincoln, Y. (1994). *Competing paradigms in qualitative research*. In N. Denzin & Y. Lincoln, *Handbook of qualitative research* (1st ed., pp. 105-117). Thousand Oaks: Sage Publications.
- Härmä, J. (2009). Can choice promote Education for All? Evidence from growth in private primary schooling in India. [http://lst-iiep.iiep-unesco.org/cgi-bin/wwwi32.exe/\[in=epi-doc1.in\]/?t2000=026942/\(100\)](http://lst-iiep.iiep-unesco.org/cgi-bin/wwwi32.exe/[in=epi-doc1.in]/?t2000=026942/(100).). 39. 10.1080/03057920902750400.
- Härmä, J. (2011). Low cost private schooling in India: is it pro poor and equitable? *International Journal of Educational Development*, Vol. 31, I. 4, pp. 350–356.
- Härmä, J. & Adefisayo, F. (2013). Scaling up: challenges facing low-fee private schools in the slums of Lagos, Nigeria. In: Srivastava, P. (Ed): *Low-fee private schooling: aggravating equity or mitigating disadvantage?* Oxford.

- Härmä, J. & Rose, P. (2012): Is low-fee private primary schooling affordable for the poor? Evidence from rural India. In: Robertson, R. & Mundy, K. (Eds.) *Public-private partnerships in education: new actors and modes of governance in a globalizing world*. Cheltenham: Edward Elgar Publishing.
- Hallinger, P. (2003), “*Leading educational change: reflections on the practice of instructional and transformational leadership*”, *Cambridge Journal of Education*, Vol. 33 No. 3, pp. 329-51.
- Hallinger, P. (2010). “*A review of three decades of doctoral studies using the Principal Instructional Management Rating Scale: a lens on methodological progress in educational leadership and management*”, paper prepared for presentation at the Annual Meeting of the University Council of Educational Administration, New Orleans, LA.
- Hallinger, P. (2011). Leadership for learning: lessons from 40 years of empirical research, *Journal of Educational Administration*, Vol. 49 Issue: 2, pp.125-142, <https://doi.org/10.1108/09578231111116699>
- Hallinger, P., Bickman, L. & Davis, K. (1996), “*School context, principal leadership and student achievement*”, *Elementary School Journal*, Vol. 96 No. 5, pp. 498-518.
- Hallinger, P., & Heck, R. (1996a). *Reassessing the principal's role in school effectiveness: a review of the empirical research, 1980–1995*. *Educational Administration Quarterly* 32(1): 5–44.
- Hallinger, P., & Heck, R. (1996b). *The principal's role in school effectiveness: an assessment of methodological progress, 1980–1995*. In: Leithwood, K., Chapman, J., Corson, D., Hallinger, P. & Hart, A. (eds) *International Handbook of Educational Leadership and Administration*. Dordrecht: Kluwer Academic, 723–783.
- Hallinger, P., & Heck, R. (1998) *Exploring the principal's contribution to school effectiveness: 1980-1995*, *School Effectiveness and School Improvement*, 9, pp. 157-191.
- Hallinger, P., & Heck, R. (2010). *Collaborative leadership and school improvement: Understanding the impact on school capacity and student learning*. *School Leadership and Management*, 30(2), 95–110.
- Hammersley, M. (2013). *What is qualitative research?* London: Bloomsbury Academic.
- Hargreaves, A., & Fink, D. (2008). “Distributed leadership: democracy or delivery?” *Journal of Educational Administration*, Vol. 46 Issue: 2, p. 229-240
- Harms, T., Clifford, R. M., & Cryer, D. (1998). *Early childhood environment rating scale*. New York: Teachers College Press.

- Harris, A. (2004). Distributed leadership for school improvement: Leading or misleading. *Educational Management Administration and Leadership*, 32, 11–24.
- Harris, A. (2004). *Distributed leadership for school improvement: Leading or misleading. Educational Management Administration and Leadership*, 32, 11–24.
- Harris, A., Muijs, D., & Crawford, M. (2003). *Deputy and assistant heads: Building leadership potential*. (Review of Literature). Coventry, England: National College for School Leadership.
- Harris, A., Leithwood, K., Day, C., Sammons, P. & Hopkins, D. (2007). Distributed leadership and organizational change: Reviewing the evidence. *Journal of Education Change* (2007) 8: 337. <https://doi.org/10.1007/s10833-007-9048-4>
- Hartley, D. (2007). *The emergence of distributed leadership in education: why now?*, *British Journal of Educational Studies*, Vol. 55 No. 2, pp. 202-14.
- Heck, R., & Hallinger, P. (2009). *Assessing the contribution of distributed leadership to school improvement and growth in math achievement. American Educational Research Journal*, 46(3), 659–689.
- Heck, R., Larson, T., & Marcoulides, G. (1990). *Principal instructional leadership and school achievement: Validation of a causal model. Educational Administration Quarterly*, 26, 94-125.
- Heckman, James J. (2008). “Schools, Skills and Synapses,” *Economic Inquiry*, 46(3): 289-324
- Heckman, J. J., Moon, S. H., Pinto, R., Savelyev, P. A., & Yavitz, A. (2010). “The Rate of Return to the HighScope Perry Preschool Program,” *Journal of Public Economics* 94, nos. 1–2 (2010): 114–128.
- Heckman, J. J. & Mosso, S. (2014). The economics of human development and social mobility. *Annual Review of Economics* 6 (1).
- Heyneman, S., & Stern, J. (2014). Low-cost private schools for the poor: what public policy is appropriate. *International Journal of Educational Development*, 35, 3 - 15.
- Hila Mehr, Cambell, K., & Mayer, B. (2013). *Education Technology in India: Designing Ed-Tech for Affordable Private Schools*. Gray Matters Capital.
- Hitchcock, G., & Hughes, D. (1995). *Research and the teacher* (2nd ed.). London [u.a.]: Routledge.

- Hoddinott, J., Alderman, H., Behrman, J. R., Haddad, L., & Horton, S. (2013). The economic rationale for investing in stunting reduction. *Maternal and Child Nutrition*, 9, 69–82. <https://doi.org/10.1111/mcn.12080>
- Hoddinott, J., Maluccio, J. A., Behrman, J., Rafael, F., & Reynaldo, M. (2008). Effect of a Nutritional Intervention During Early Childhood on Economic Productivity Among Guatemalan Adults. *Lancet*. 371. 411-6. 10.1016/S0140-6736(08)60205-6.
- Hudson, L., & Ozanne, J. (1988). Alternative Ways of Seeking Knowledge in Consumer Research. *J CONSUM RES*, 14(4), 509. doi: 10.1086/209132
- Hulpia, H., Devos, G., & Rosseel, Y. (2009). *The Relationship between the Perception of Distributed Leadership in Secondary Schools and Teachers' and Teacher Leaders' Job Satisfaction and Organizational Commitment. School Effectiveness and School Improvement*. 20. 10.1080/09243450902909840.
- Huttenlocher, P.R., & Dabholkar, A.S. (1997). Regional differences in synaptogenesis in human cerebral cortex. *The Journal of Comparative Neurology*, 387, 167-178. 14.
- Hustedt, J. T., Barnett, W. S., & Jung, K. (2007). The effects of the New Mexico PreK initiative on young children's school readiness. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- Hustedt, J. T., Barnett, W. S., Jung, K., & Figueras, A. (2008). Impacts of New Mexico PreK on children's school readiness at kindergarten entry: Results from the second year of a growing initiative. New Brunswick, NJ: National Institute for Early Education Research.
- Hustedt, J. T., Barnett, W. S., Jung, K., & Figueras-Daniel, A. (2009). Continued impacts of New Mexico PreK on children's readiness for kindergarten: Results from the third year of implementation. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- Hustedt, J. T., Barnett, W. S., Jung, K., & Friedman, A. (2009). Impacts from the Fourth Year of New Mexico PreK The New Mexico PreK Evaluation: Impacts From the Fourth Year (2008-2009) of New Mexico's State-Funded PreK Program.
- Hustedt, J. T., Barnett, W. S., Jung, K., & Goetze, L. D. (2009). The New Mexico PreK Evaluation: Results from the initial four years of a new state preschool initiative. Final report. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University

- Hustedt, J. T., Barnett, W. S., Jung, K., & Thomas, J. (2007). The effects of the Arkansas Better Chance Program on young children's school readiness. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University. Available at <http://nieer.org/resources/research/ArkansasYear1.pdf>
- Isely, B. J. (2001). Tamil Nadu Early Childhood Rating Scale. Chennai, India: M.S. Swaminathan Research Foundation.
- Kagitcibasi, C., Sunar, D., & Bekman, S. (2001). Long-term effects of early intervention: Turkish low-income mothers and children. *Journal of Applied Developmental Psychology*, 22(4), 333-361. [http://dx.doi.org/10.1016/S0193-3973\(01\)00071-5](http://dx.doi.org/10.1016/S0193-3973(01)00071-5)
- Kamerman, S. B. (2000). Early childhood intervention policies: An international perspective. In J. P. Shonkoff & S. J. Meisels (Eds.), *Handbook of early childhood intervention* (pp. 613-629). New York, NY, US: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511529320.028>
- Kamerman, S. B. (2001) Early Childhood Education and Care: International Perspectives. New York: Columbia University, ICFP.
- Kamerman, S. B. (2006). A global history of early childhood education and care. Paper commissioned for the EFA Global Monitoring Report 2007, Strong foundations: early childhood care and education. Paris: UNICEF.
- Kaul, V., Bhattacharjea, S., Chaudhary, A. B., Ramanujan, P., Banerji, M., & Nanda, M. (2017). The India Early Childhood Education Impact Study. New Delhi: UNICEF.
- Kidder, L. H., Judd, C. M., Smith, E. R., & Society for the Psychological Study of Social Issues. (1986). *Research methods in social relations*. New York: Holt, Rinehart and Winston.
- Kingdon, G. (1996). Private schooling in India: Size, nature, and equity-effects. *Economic and Political Weekly*. 31.
- Kisira, S. (2008). "Uganda". In Low-cost private education. Impacts on achieving universal primary education, Edited by: Phillipson, B. London: Commonwealth Secretariat.
- Kleine-Kracht, P. (1993). *Indirect instructional leadership: an administrator's choice*, *Educational Administration Quarterly*, Vol. 18 No. 4, pp. 1-29.
- Lake A., & Chan M. (2015). Putting science into practice for early child development. *Lancet* 2015; 385: 1816–17.
- Lashway, L. (2003). *Distributed leadership*. Research Roundup, 19, 2–6.

- Lehrl, S., Kluczniok, K., & Roßbach, H. (2016). Longer-term associations of preschool education: The predictive role of preschool quality for the development of mathematical skills through elementary school. *Early Childhood Research Quarterly*. 36. 475-488. 10.1016/j.ecresq.2016.01.013.
- Leithwood, K. (1994), “*Leadership for school restructuring*”, *Educational Administration Quarterly*, Vol. 30 No. 4, pp. 498-518.
- Leithwood, K., Day, C., Sammons, P., Harris, A., & Hopkins, D. (2006). *Seven strong claims about successful school leadership*. Nottingham, England: National College of School Leadership
- Leithwood, K. & Jantzi, D. (1999). “*The relative effects of principal and teachers sources of leadership on student engagement with school*”, *Educational Administration Quarterly*, Vol. 35 No. 5, pp. 679-706.
- Leithwood, K. & Jantzi, D. (2000). “*The effects of transformational leadership on organizational conditions and student engagement with the school*”, *Journal of Educational Administration*, Vol. 38 No. 2, pp. 112-29.
- Leithwood, K., & Levin, B. (2010). *Understanding how leadership influences student learning*. In B. McGaw, E. Baker & P. Peterson (Eds.), *International encyclopaedia of education* (Vol. 5, 3rd ed., pp. 45–50). Oxford, UK: Elsevier.
- Leithwood, K., & Mascall, B. (2008). Collective Leadership Effects on Student Achievement. *Educational Administration Quarterly*, 44(4), 529–561. <https://doi.org/10.1177/0013161X08321221>
- Leithwood, K., Mascall, B., Strauss, T., Sacks, R., Memon, N., & Yashkina, A. (2007). *Distributing Leadership to Make Schools Smarter: Taking the Ego Out of the System*. *Leadership and Policy in Schools*. 6. 37-67. 10.1080/15700760601091267.
- Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning*. Retrieved June, 2005, from <http://www.wallacefoundation.org/NR/rdonlyres/E3BCCFA5-A88B-45D3-8E27-B973732283C9/0/ReviewofResearchLearningFromLeadership.pdf>
- Leithwood, K. A., University of Minnesota., Ontario Institute for Studies in Education of the University of Toronto., & Wallace Foundation. (2004). *How leadership influences student learning: Review of research*. Minneapolis, MN: Center for Applied Research and Educational Improvement, University of Minnesota.

- Leitner, D. (1994), “*Do principals affect student outcomes? An organizational perspective*”, *School Effectiveness and School Improvement*, Vol. 5 No. 3, pp. 219-38.
- Levitt, S., & List, J. (2011). Was There Really a Hawthorne Effect at the Hawthorne Plant? An Analysis of the Original Illumination Experiments. *American Economic Journal: Applied Economics*, 3(1), 224-238. doi: 10.1257/app.3.1.224
- Lichtman JW, Sanes JR. (2008). Ome sweet ome: what can the genome tell us about the connectome? *Curr Opin Neurobiol*. 2008 Jun; 18(3):346–353.
- Love, J. M., Kisker, E. E., Ross, C. M, Schochet, P. Z., Brooks-Gunn, J., & Boller, K. (2001). Building their futures: How Early Head Start programs are enhancing the lives of infants and toddlers in low income families. Washington, DC: U.S. Department of Health and Human Services.
- Luby, J. L. (2015). Poverty’s Most Insidious Damage. *JAMA Pediatrics*, 169(9), 810. doi:10.1001/jamapediatrics.2015.1682
- Lu, C., Black, M. M., & Richter, L. M. (2016). Risk of poor development in young children in low-income and middle-income countries: an estimation and analysis at the global, regional, and country level. *The Lancet. Global health*, 4(12), e916–e922. doi:10.1016/S2214-109X(16)30266-2
- MacBeath, J. and Cheng, Y.C. (2008). *Leadership for Learning: International Perspectives*, Sense Publishers, Rotterdam.
- Maden, M. (2001). *Success Against the Odds, Five Years On: Revisiting effective schools in disadvantaged areas* (London: Routledge Falmer)
- schools in disadvantaged areas (London: Routledge Falmer).
- Maluccio, J. A., Hoddinott, J. F., Behrman, J. R., Martorell, R., Quisumbing, A. R., & Stein, A. D. (2009). The Impact of Nutrition during Early Childhood on Education among Guatemalan Adults (2009). PSC Working Paper Series. 4
- Marks, H. and Printy, S. (2003). “*Principal leadership and school performance: an integration of transformational and instructional leadership*”, *Educational Administration Quarterly*, Vol. 39 No. 3, pp. 370-97.
- Marzano, R. J., Waters, T., & McNulty, B. (2005). *School leadership that works: From research to results*. Aurora, CO: ASCD and McREL
- McCormack, C. (2000a). From Interview Transcript to Interpretive Story: Part 1—Viewing the Transcript through Multiple Lenses. *Field Methods*, 12(4), 282–297. <https://doi.org/10.1177/1525822X0001200402>

- McCormack, C. (2000b). From Interview Transcript to Interpretive Story: Part 2— Developing an Interpretive Story. *Field Methods*, 12(4), 298–315. <https://doi.org/10.1177/1525822X0001200403>
- Meaney, M. (2010). Epigenetics and the biological definition of gene x environment interactions. *Child Development*, 81(1), 41–79.
- Mehrotra, S., & Panchamukhi, R. P. (2006). Private Provision of Elementary Education in India: Findings of a Survey in Eight States. *Compare: A Journal of Comparative Education*. 36. 421-442. 10.1080/03057920601024883.
- Merriam, S., & Tisdell, E. (2016). Qualitative research. San Francisco, CA: Jossey-Bass.
- Mialaret, Gaston (1976) World Survey of Pre-school Education. Paris, France
- Mitra, S., Tooley, J., Inamdar, P. & Dixon, P. (2003). Improving English Pronunciation: An Automated Instructional Approach. *Information Technologies and International Development*. 1. 75-84. 10.1162/154475203771799720.
- Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded source-book (2nd ed.). Thousand Oaks, CA, US: Sage Publications, Inc.
- Montie, J.E., Xiang, Z., & Schweinhart, L.J. (2006). Preschool Experience in 10 Countries: Cognitive and Language Performance at Age 7.
- MSSRF. (2001). Quality Matters Study. MS Swaminathan Research Foundation. 2001.
- Mulford, B. and Silins, H. (2003) *Leadership for Organisational Learning and Improved Student Outcomes—What Do We Know*. *Cambridge Journal of Education*, 33, 175-195. <http://dx.doi.org/10.1080/03057640302041>
- Mulford, B., & Silins, H. (2009). *Revised models and conceptualisation of successful school principalship in Tasmania*. In B. Mulford & B. Edmunds (Eds.), *Successful school principalship in Tasmania* (pp. 157–183). Launceston, Tasmania: Faculty of Education, University of Tasmania.
- Muralidharan, K., & Kremer, M. (2006). "Public and Private Schools in Rural India," Mobilizing the Private Sector for Public Education (Conference Volume - forthcoming). Kennedy School of Government, Harvard University, 2006.
- Nilekani, N. (2010) *Imagining India: The idea of a Renewed Nation*, Penguin Books.
- Noble, K. G., Houston, S. M., Brito, N. H., Bartsch, H., Kan, E., Kuperman, M. J., Akshoomoff, N., Amaral, D., Bloss, S. C., Libiger, O., Schork, N., Murray, S. S., Casey, J. B., Chang, L., Ernst, M. T., Frazier, J., Gruen, J., Kennedy, D., van zijl, P., & Sowell, R. E.

- (2015). Family Income, Parental Education and Brain Structure in Children and Adolescents. *Nature Neuroscience* 2015; 18: 773–78.
- Onwuegbuzie, A. J., & Leech, N. L. (2005). On Becoming a Pragmatic Researcher: The Importance of Combining Quantitative and Qualitative Research Methodologies. *International Journal of Social Research Methodology: Theory & Practice*, 8(5), 375-387. <http://dx.doi.org/10.1080/13645570500402447>
- Panchamukhi, P.R., & Mehrotra, S. (2005). Assessing public and private provision of elementary education in India. In: Mehrotra, S., Panchamukhi, P.R., Srivastava, R. (Eds.), *Universalizing Elementary Education in India: Uncaging the Tiger Economy*. Oxford University Press, Delhi. PROBE, 1999. Public Report on Basic Education. Oxford University Press, Delhi.
- Pandya, R. N. (2014). Indian Education System- A Historical Journey. *International Journal for Research in Education*. Vol. 3, Issue: 3, May-June 2014
- Patrinos, H.A., Barrera- Osorio, F. &Guáqueta, J. (2009). *The Role and Impact of Public Private Partnerships in Education*, Washington, DC.
- Patton, M. (2002). *Qualitative research and evaluation methods* (p. 114). Thousand Oaks, California: SAGE.
- Pounder, D.G., Ogawa, R.T. & Adams, E.A. (1995). *Leadership as an organization-wide phenomena: its impact on school performance*, *Educational Administration Quarterly*, Vol. 31 No. 4, pp. 564-88.
- PROBE. (1999). *Government Report on Basic Education in India*, Oxford University Press, New Delhi.
- Psathas, G. (1995). *Qualitative research methods, Vol. 35. Conversation analysis: The study of talk-in-interaction*. Thousand Oaks, CA, US: Sage Publications, Inc.
- Ramey, C. T., & Ramey, S. L. (1998). Early intervention and early experience. *American Psychologist*, 53(2), 109-120. <http://dx.doi.org/10.1037/0003-066X.53.2.109>
- Rangaraju, B., James, T., & Pauline, D. (2012). *The Private School Revolution in Bihar: Findings from a Survey in Urban Patna*. Delhi: India Institute.
- Reynolds, A. J. (2000). *Success in early intervention: The Chicago Child-Parent Centers*. Lincoln, NE: University of Nebraska Press.

- Robinson, V. M. J., Lloyd, C. A., & Rowe, K. J. (2008). The Impact of Leadership on Student Outcomes: An Analysis of the Differential Effects of Leadership Types. *Educational Administration Quarterly*, 44(5), 635–674. <https://doi.org/10.1177/0013161X08321509>
- Rose, P. (2002). Is the Non-State Education Sector Serving the needs of the Poor?: Evidence from east and southern Africa, Paper prepared for DfID Seminar in preparation for 2004 World Development Report, Oxford, 2-4 November, 2002.
- Rose, P. (2003). From the Washington to the Post-Washington Consensus: The Influence of International Agendas on Education Policy and Practice in Malawi. *Globalisation, Societies and Education* 1(1): 67-86.
- Rose, P. & Adelabu, M. (2007). Private sector contributions to education for all in Nigeria. Private Schooling in Less Economically Developed Countries: Asian and African Perspectives. 67-87.
- Rowan, B., Chiang, F., & Miller, R. (1997). Using Research on Employees' Performance to Study the Effects of Teachers on Students' Achievement. *Sociology of Education*, 70(4), 256-284. doi:10.2307/2673267
- Rubin, H. J., & Rubin, I. (2012). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, Calif: SAGE.
- San Francisco, A.R., Mo, E., Carlo, M. et al. (2006). The influences of language of literacy instruction and vocabulary on the spelling of Spanish–English bilinguals. *Reading and Writing*, August 2006, Volume 19, Issue 6, pp 627–642
- Scheurich, J. J. (1998) *Highly successful and loving, public elementary schools populated mainly by low-SES children of color: Core beliefs and cultural characteristics*, *Urban Education*, 33(4), pp. 451-491.
- Scholz, R. W., & Tietje, O. (2002). *Embedded case study methods*. Thousand Oaks, CA: SAGE. doi: 10.4135/9781412984027
- Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). Lifetime effects: The High/Scope Perry Preschool Study through age 40. Monographs of the High/Scope Educational Research Foundation, Number 14. Ypsilanti, MI: High/Scope Educational Research Foundation.
- Schweinhart, L. J., & Weikart, D. P. (1997). The High/Scope Preschool Curriculum Comparison study through age 23. *Early Childhood Research Quarterly*, 12(2), 117-143. [http://dx.doi.org/10.1016/S0885-2006\(97\)90009-0](http://dx.doi.org/10.1016/S0885-2006(97)90009-0)

- Sen, R., & Blatchford, P. (2001). Reading in a Second Language: Factors Associated with Progress in Young Children. *Educational Psychology*, 21, 189-202. 10.1080/01443410020043887.
- Shonkoff, J. P., Boyce, W. T., & McEwen, B. S. (2009). Neuroscience, Molecular Biology, and the Childhood Roots of Health Disparities. *Jama*, 301(21), 2252. doi:10.1001/jama.2009.754
- Shonkoff, J. P., & Fisher, P. A. (2013). Rethinking evidence-based practice and two-generation programs to create the future of early childhood policy. *Development and psychopathology*, 25(4 Pt 2), 1635–1653. doi:10.1017/S0954579413000813
- Shonkoff, J. P., Garner, A. S. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics* 2012; 129: e232–46.
- Shonkoff, J.P., & Phillips, D. (Eds.) (2000). From neurons to neighborhoods: The science of early childhood development. Committee on Integrating the Science of Early Childhood Development. Washington, DC: National Academy Press.
- Shukla, S., & Joshi, P. 2008. “India”. In Low-cost private education. Impacts on achieving universal primary education, Edited by: Phillipson, B. London: Commonwealth Secretariat.
- Silins, H. (1994). *The relationship between transformational and transactional leadership and school improvement outcomes*, *School Effectiveness and School Improvement*, Vol. 5 No. 3, pp. 272-98.
- Silins, H., & Mulford, B. (2004). *Schools as Learning Organizations: Effects on Teacher Leadership and Student Outcomes*. *School Effectiveness and School Improvement*, 15, 443-466.
- Singh, R., & Sarkar, S. (2012) Teaching Quality Counts: How Student Outcomes Relate to Quality of Teaching in Private and Public Schools in India, Working Paper 9, Young Lives, University of Oxford.
- Southworth, G. (2002). *Instructional Leadership in Schools: Reflections and empirical evidence*, *School Leadership & Management*, 22:1, 73-91, DOI: 10.1080/13632430220143042.
- Spillane, J. (2005). *Primary school leadership practice: How the subject matters*. *School Leadership and Management*. 25. 383-397. 10.1080/13634230500197231.
- Spillane, J. (2006). *Distributed Leadership*, Jossey-Bass, San Francisco, CA.

- Spillane, J. P., Halverson, R., & Diamond, J. B. (2004). *Towards a theory of leadership practice: A distributed perspective. Journal of Curriculum Studies*, 36(1), 3-34. <https://doi.org/10.1080/0022027032000106726>
- Spillane, J., & Sherer, J. (2004). *A distributed perspective on school leadership: leadership practice as stretched over people and place*. Northwestern University
- Srivastava, P. (2007a). For Philanthropy or Profit? The Management and Operation of Low-fee Private Schools in India, in P. Srivastava & G. Walford (Eds) *Private Schooling in Less Economically Developed Countries: Asian and African perspectives*, pp. 153-186. Oxford: Symposium Books.
- Srivastava, P. (2007b). *Neither Voice nor Loyalty: school choice and the low-fee private sector in India*. Research Publications Series, Occasional Paper No. 134. New York: Na-tional Center for the Study of Privatization in Education, Columbia University.
- Srivastava, P. (2010). Privatization and Education for All: Unravelling the mobilizing frames. *Development*, 53(4), 522-528. doi:10.1057/dev.2010.88
- Srivastava, Prachi. (2013). Low-fee private schooling: issues and evidence. In book: *Low-fee Private Schooling: aggravating equity or mediating disadvantage?* Chapter: 1, Publisher: Symposium Books, Editors: Prachi Srivastava, pp.7-35
- Srivastava, P., Noronha, C., & Fennell, S. (2013). Private sector study: Sarva Shiksha Abhiyan. Report submitted to DFID (India). Retrieved from: http://www.prachisrivastava.com/uploads/1/9/5/1/19518861/srivastava_et_al._private_sector_study_ssa_india.pdf
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA, US: Sage Publications, Inc.
- Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I. & Taggart, B. (2004). *The Effective Provision of Pre-school Education (EPPE) Project: Findings from pre-school to end of key stage 1*. Nottingham, United Kingdom: Department for Education and Skills.
- Szyf, M. (2009a). Early life, the epigenome and human health. *Acta Paediatrica*, 98(7), 1082-1084.
- Szyf, M. (2009b). The early life environment and the epigenome. *Biochimica Biophysica Acta (BBA)*, 1790(9), 878-885.
- Thorne, S. (2000). Data analysis in qualitative research. *Evidence-Based Nursing*, 3(3), 68-70. doi: 10.1136/ebn.3.3.68

- Tilak, J.B.G., & Sudarshan, R. (2001). Private schooling in rural India. Working Paper Series, No. 76. New Delhi: NCERT. Available online from: <http://www.ncaer.org/Downloads/WorkingPapers/wp76.pdf>
- Tooley, J. (2000a). Private education: the poor's best chance? UNESCO Courier, November.
- Tooley, J. (2000b). Private schools for the poor. Economic Affairs, June.
- Tooley, J. (2001). Serving the needs of the poor: the private education sector in developing countries. In: Hepburn, C. (Ed.), *Can the Market Save our Schools?* The Frazer Institute, Vancouver.
- Tooley, J. (2009). *The beautiful tree. A personal journey into how the world's poorest people are educating themselves*, New Delhi: Penguin.
- Tooley, J. (2015). Low-cost private schools: What we need to know, do know, and their relevance for education and development. *Routledge Handbook of International Education and Development*. 227-240.
- Tooley, J., & Pauline, D. (2002). *Private Schools for the Poor: A Case Study from India*. Reading, UK: CfBT.
- Tooley, J., & Pauline D. (2005). Is There a Conflict Between Commercial Gain and Concern for the Poor? Evidence from Private Schools for the Poor in India and Nigeria. *Economic Affairs* 25(2): 20-26.
- Tooley, J., & Dixon, P. (2006). 'De facto' privatisation of education and the poor: Implications of a study from sub-Saharan Africa and India. *Compare: A Journal of Comparative and International Education*. Compare, 36. 443-462. 10.1080/03057920601024891.
- Tooley, J., Dixon, P., Gomathi, S.V. (2007) Private schools and the millenium development goal of universal primary education: a census and comparative survey in Hyderabad, India, *Oxford Review of Education*, 33(5), 539–560
- Tooley, J. and Dixon, P. (2007). "Private education for low-income families: Results from a global research project". In *Private schooling in less economically developed counties: Asian and African perspectives*, Edited by: Srivastava, P. and Walford, G. Oxford: Symposium Books. 15-40
- Tooley, J., Pauline, D., & Isaac, A. (2007a). Private and Public Schooling in Ga, Ghana: A Census and Comparative Survey. *International Review of Education* 53(3-4): 389-415.

- Tooley, J., Dixon, P., & Gomathi, S.V. (2007b). Private schools and the millennium development goal of universal primary education: a census and comparative survey in Hyderabad, India, *Oxford Review of Education*, 33(5), 539–560
- Tooley, J., Dixon, P., Shamsan, Y., & Schagen, I. (2010). The relative quality and cost-effectiveness of private and public schools for low-income families: A case study in a developing country. *School Effectiveness and School Improvement*, 21(2): 117–44.
- Tooley J., & Longfield D. (2015). *The Role and Impact of Private Schools in Developing Countries: A response to the DFID-commissioned "Rigorous Literature Review"*. London: Pearson, 2015.
- Torrance, D. (2013). *Distributed Leadership: challenging five generally held assumptions. School Leadership and Management*, 33(4), 354-372. 10.1080/13632434.2013.813463
- Trochim, W. M. (1989). An introduction to concept mapping for planning and evaluation. *Evaluation and Program Planning*, 12(1), 1-16.
- Umar, A. (2008). "Nigeria". In *Low-cost private education: Impacts on achieving universal primary education*, Edited by: Phillipson, B. London: Commonwealth Secretariat. 91-130
- UNESCO. (1961). International Bureau of Education, *Organization for Pre-Primary Education*, 1961 Survey, Geneva; International Bureau of Education, Geneva and UNESCO Paris.
- Walker, S. P., Chang, S. M., Vera-Hernandez, M., & Grantham-McGregor, S. (2011). Early childhood stimulation benefits adult competence and reduces violent behavior. *Pediatrics* 2011; 127: 849–57.
- Walker, S. P., Chang, S. M., Wright, A., Osmond, C., & Grantham-McGregor, S. M. (2015). Early childhood stunting is associated with lower developmental levels in the subsequent generation of children. *J Nutr* 2015; 145: 823–28.
- Wan, S., Hau-Fai Law, E., & Ki Chan, K. (2017). *Teachers' perception of distributed leadership in Hong Kong primary schools. School Leadership and Management*. 10.1080/13632434.2017.1371689.
- Watkins, K. (2000). *The Oxfam education report*. Dorset [England: Oxfam.]
- Weaver, I. C. (2014). Integrating early life experience, gene expression, brain development, and emergent phenotypes: unraveling the thread of nature via nurture. *Adv Genet* 2014; **86**: 277–307.

- Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Development*, 84(6), 2112-2130. <https://doi.org/10.1111/cdev.12099>
- Wong, V. C., Cook, T. D., Barnett, W. S., & Jung, K. (2008). An effectiveness-based evaluation of five state pre-kindergarten programs. *Journal of Policy Analysis and Management*, 27(1), 122-154. <http://dx.doi.org/10.1002/pam.20310>
- Werker, J. F., and Hensch, T. K. (2015). Critical periods in speech perception: new directions. *Annu. Rev. Psychol.* 66, 173–196. doi: 10.1146/annurev-psych010814-015104
- Wiley, S. (2001). *Contextual effects on student achievement: school leadership and professional community*, *Journal of Educational Change*, Vol. 2 No. 1, pp. 1-33.
- Witziers, B., Bosker, R. J., & Krüger, M. L. (2003). *Educational leadership and student achievement: The elusive search for an association*. *Educational Administration Quarterly*, 39(3), 398–425.
- Woods, P. (2004). Democratic leadership: drawing distinctions with distributed leadership. *International Journal of Leadership in Education*, 7(1) pp. 3–26.
- Woods, P. (2005). *Democratic Leadership in Education*. 10.4135/9781446211885.
- Yin, R. K. (2009). *Case study research: Design and methods*. Fourth Edition. Los Angeles: Sage.
- Yoshikawa, H., Leyva, D., Snow, C., Treviño, E., Clara B. M., Weiland, C., Gomez, C. J., Moreno, L., Rolla, A., D'Sa, N., Arbour, M. (2015). Experimental impacts of a teacher professional development program in Chile on preschool classroom quality and child outcomes. *Developmental psychology*. 51. 309-22. 10.1037/a0038785.
- Yoshikawa, H., & Nieto, A. M. (2013). Paradigm Shifts and New Directions in Research on Early Childhood Development Programs in Low-and Middle-Income Countries. In *Handbook of Early Childhood Development Research and Its Impact on Global Policy* Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199922994.003.0026>

Online references

- ASER. (2010). Annual Status of Education Report (Rural) 2011. Retrieved on 15 May 2019 from http://www.img.asercentre.org/docs/Publications/ASER%20Reports/ASER_2010/ASERReport2010.pdf

- ASER. (2011). Annual Status of Education Report (Rural) 2011. Retrieved on 15 May 2019 from http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER_2011/aser_2011_report_8.2.12.pdf
- ASER. (2012). Annual Status of Education Report (Rural) 2012. Retrieved on 15 May 2019 from http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER_2012/fullaser2012report.pdf
- ASER. (2018). Annual Status of Education Report (Rural) 2018. Retrieved on 15 May 2019 from <http://img.asercentre.org/docs/ASER%202018/Release%20Material/aserreport2018.pdf>
- BBC. (2019). British Broadcasting Corporation: What is India's caste system? Retrieved on 15 May 2019 from <https://www.bbc.com/news/world-asia-india-35650616>
- BERA. (2018). British Educational Research Association: *Ethical guidelines for educational research*. 4th edn. Retrieved on 15 May 2019 from <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018>
- British Council. (2014). Indian School Education System. The British Council, India, 2014. Retrieved on 15 May 2015 from https://www.britishcouncil.in/sites/default/files/indian_school_education_system_-_an_overview_1.pdf
- CBSE. (2019). Central Board of Secondary Education. Retrieved on 14-4-2019 from: <http://cbse.nic.in/newsite/aboutCbse.html>
- Constitution Amendment Act (1976). Retrieved from: <http://legislative.gov.in/constitution-forty-second-amendment-act-1976> on 14-4-19
- Constitution Amendment Act (2002). Retrieved from: <https://www.india.gov.in/my-government/constitution-india/amendments/constitution-india-eighty-sixth-amendment-act-2002>
- Constitution of India. (1949). Constitution of India, 1949. Retrieved on 14th April 2019 from: <http://www.legislative.gov.in/constitution-of-india>
- DISE. (2015). DISE Analytical tables 2014-15. NUEPA 2015. Retrieved on 15 May 2019 from www.dise.in/Downloads/Publications/.../U-DISE-SchoolEducationInIndia-2014-15.pdf
- DSCF. (2007). *Department for schools, children and families: The Impact of School Leadership on Pupil Outcomes*. University of Nottingham 2007. Retrieved on 15 May 2019 from dera.ioe.ac.uk/7912/1/DCSF-RR018.pdf
- Education Initiatives. (2006). Student Learning in Metros study. Education Initiatives.

- Education Initiatives. (2010). Quality Education Study. Education Initiatives. 2010. Retrieved on 15 May 2019 from http://www.ei-india.com/wp-content/uploads/Main_Report.pdf
- Five Year Plan. (2012). Twelfth Five Year Plan. Government of India. Retrieved on 15 May 2019 from https://mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/XII-FYP_SocialSector.pdf
- FSG. (2015a). Program to Improve Private Early Education: Customer Research—Findings and Analysis (September 2015). Retrieved on 15 May 2019 from <https://www.fsg.org/sites/default/files/publications/Parent%20perceptions%20and%20buying%20behavior%20related%20to%20early%20childhood%20education%20.pdf>
- FSG. (2015b). Program to Improve Private Early Education: Understanding the Affordable Private School Market in India. Retrieved on 15 May 2019 from <https://www.fsg.org/sites/default/files/publications/Affordable%20Private%20School%20administrators%20perceptions%20and%20purchasing%20behavior.pdf>
- FSG. (2016). Program to Improve Private Early Education: Assessment of Child Development Outcomes (July-September 2016). Retrieved on 15 May 2019 from https://www.fsg.org/sites/default/files/publications/School%20readiness%20of%20students%20entering%20Grade%201%20in%20Affordable%20Private%20Schools%20and%20government%20schools_0.pdf
- FSG (2017). Program to Improve Private Early Education: Research on Affordable Private School Pre-primary Teachers. Retrieved on 15 May 2019 from <https://www.fsg.org/sites/default/files/publications/Mindset%20barriers%20and%20implementation%20challenges%20faced%20by%20Affordable%20Private%20School%20teachers.pdf>
- MDG. (2000). United Nations Millennium Declaration: Resolution adopted by the General Assembly. Fifty-fifth session Agenda item 60 (b). Retrieved on 15 May 2019 from <https://www.un.org/millennium/declaration/ares552e.pdf>
- MDG. (2015). The Millennium Development Goals Report 2015. United Nations. Retrieved on 15 May 2019 from [https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf)

MWCD. (2018). Annual Report 2017-18. Ministry of Women and Child Development, Government of India. Retrieved on 15 May 2019 from <https://wcd.nic.in/annual-report>

OECD. (2001). Education at a glance. Retrieved on 15 May 2019 from <https://www.oecd-ilibrary.org/docserver/eag-2001-en.pdf?expires=1557988879&id=id&ac-cname=guest&checksum=BC7CF58D14F438F50893D316DDF03526>

National Early Childhood Care and Education Curriculum Framework. (2013). Retrieved on 15 May 2019 from https://wcd.nic.in/sites/default/files/national_ecce_curr_framework_final_03022014%20%282%29.pdf

NECCEP. (2013). National Early Childhood Care and Education Policy 2013. Retrieved on 15 May 2019 from <https://wcd.nic.in/sites/default/files/National%20Early%20Childhood%20Care%20and%20Education-Resolution.pdf>

National Education Policy. (1986). Retrieved on 15 May 2019 from https://mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/NPE86-mod92.pdf

RBI. (2011). Reserve Bank of India: Details of tier-wise classification of centers based on population. Retrieved on 15 May 2019 from https://rbidocs.rbi.org.in/rdocs/content/pdfs/100MCA0711_5.pdf

Right to Education Act. (2009). The Right of Children to Free and Compulsory Education Act, 2009. Retrieved on 15 May 2019 from https://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/rte.pdf

SERA-SEED. (2007). Scottish Educational Research Association: Starting Point for Research in Schools. Retrieved on 15 May 2019 from https://www.gla.ac.uk/media/media_96030_en.pdf

UDHR. (1948). Universal Declaration of Human Rights 1948. Retrieved on 15 May 2019 from https://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf

UIS. (2017). UNESCO Institute for Statistics: Fact Sheet No. 46, September 2017 UIS/FS/2017/ED/46. Retrieved on 15 May 2019 on <http://uis.unesco.org/sites/default/files/documents/fs46-more-than-half-children-not-learning-en-2017.pdf>

UN General Assembly. (2015). Transforming our world: the 2030 Agenda for Sustainable Development. Retrieved on 15 May 2019 from https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

UNICEF. (2018). UNICEF: Under-five mortality, retrieved from: <https://data.unicef.org/topic/child-survival/under-five-mortality/> on 12/04/2019

- UNESCO. (2012). International Standard Classification of Education. UNESCO. Retrieved on 15 May 2019 from <http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>
- World Bank. (2004). Making services work for the poor. World Bank. Retrieved on 15 May 2019 from <https://openknowledge.worldbank.org/handle/10986/5986?locale-attribute=fr>

Appendix 1

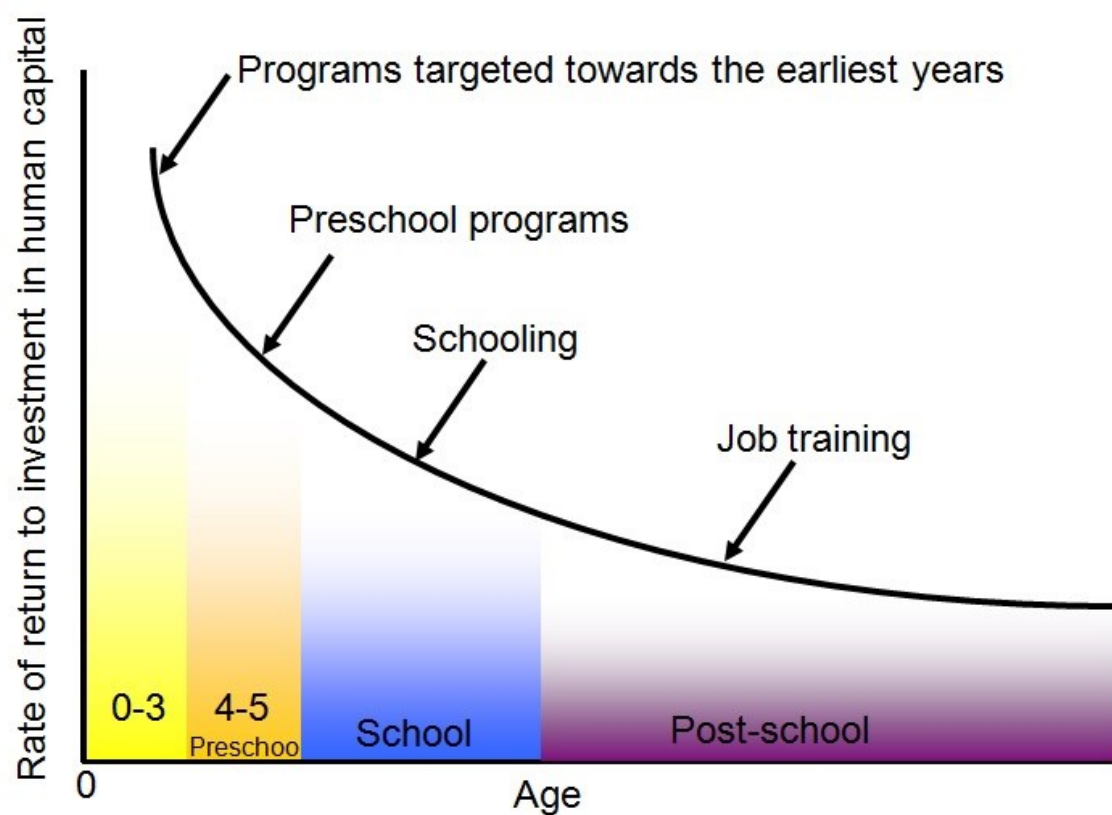


Figure 1. Heckman Curve: returns to a dollar invested on interventions at various ages

Appendix 2

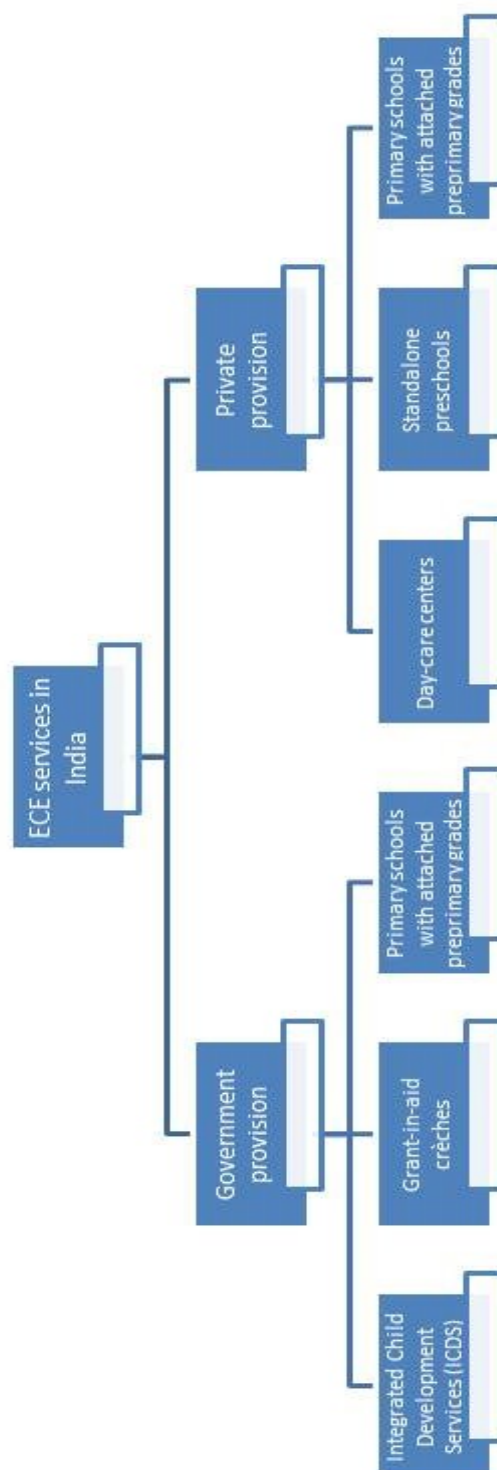


Figure 2. Types of ECE services available in India

Appendix 3

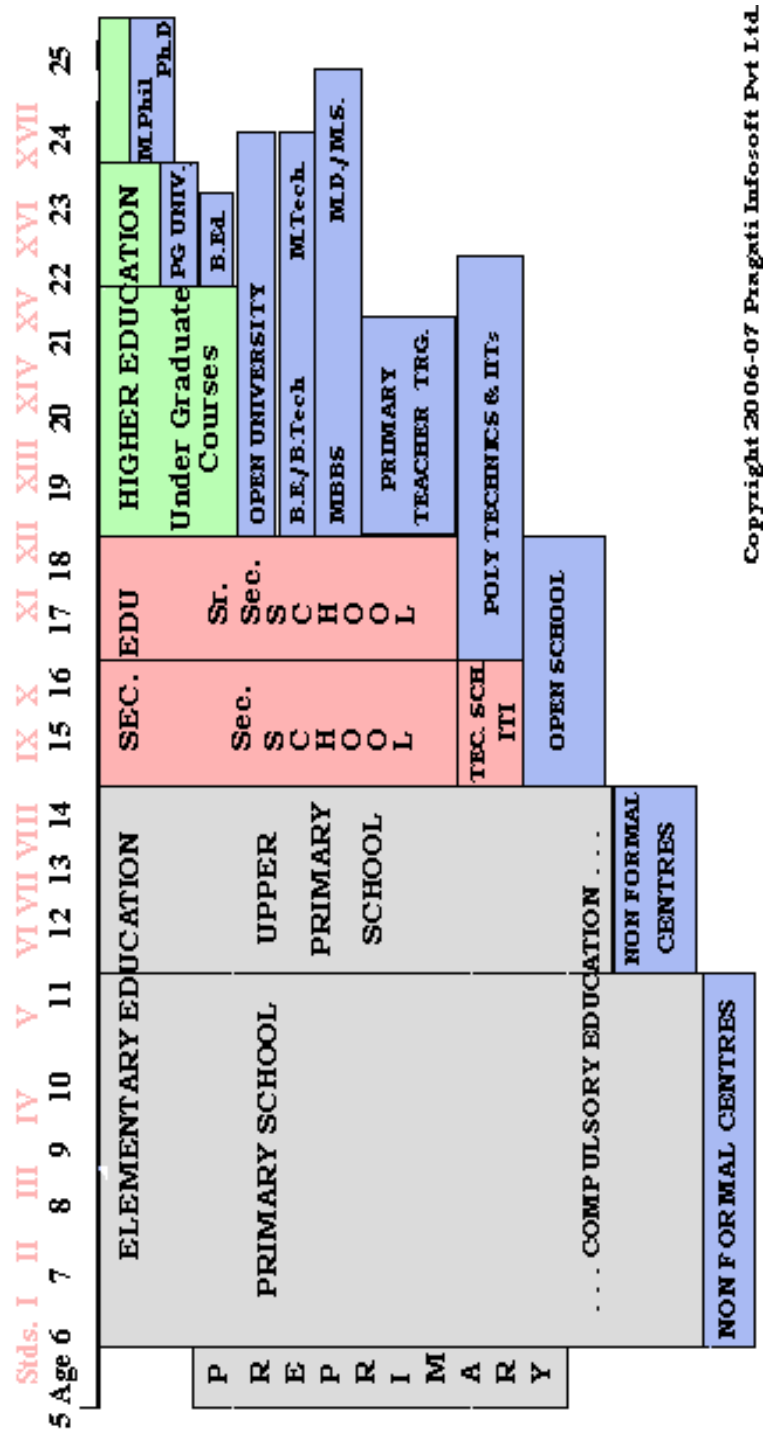


Figure 3. Indian education system from primary to university (higher) education²⁹

²⁹ Source: <http://www.indiaeducation.net/indiaedudestination/structure/structure-of-education.aspx>

Appendix 4

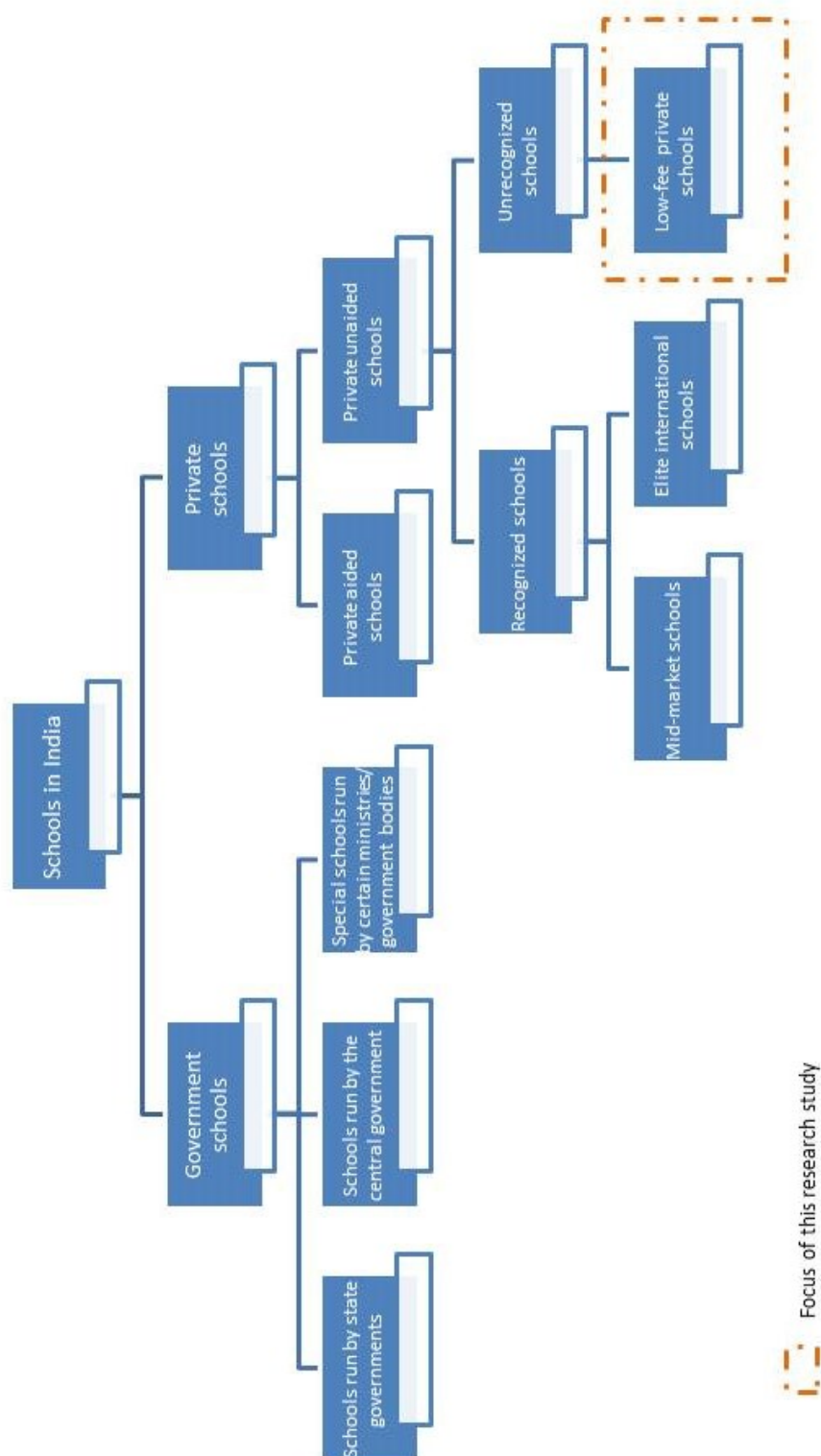


Figure 4. Classification of schools in India

Appendix 5

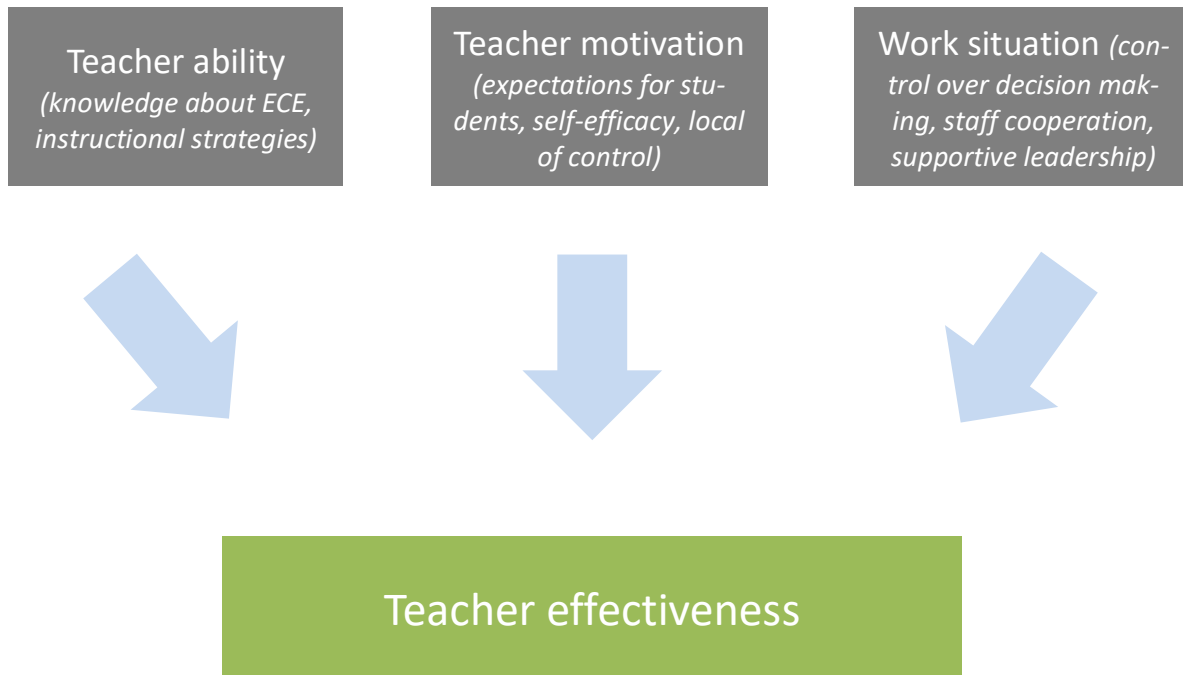


Figure 5. Rowan's teacher effectiveness model

Appendix 6

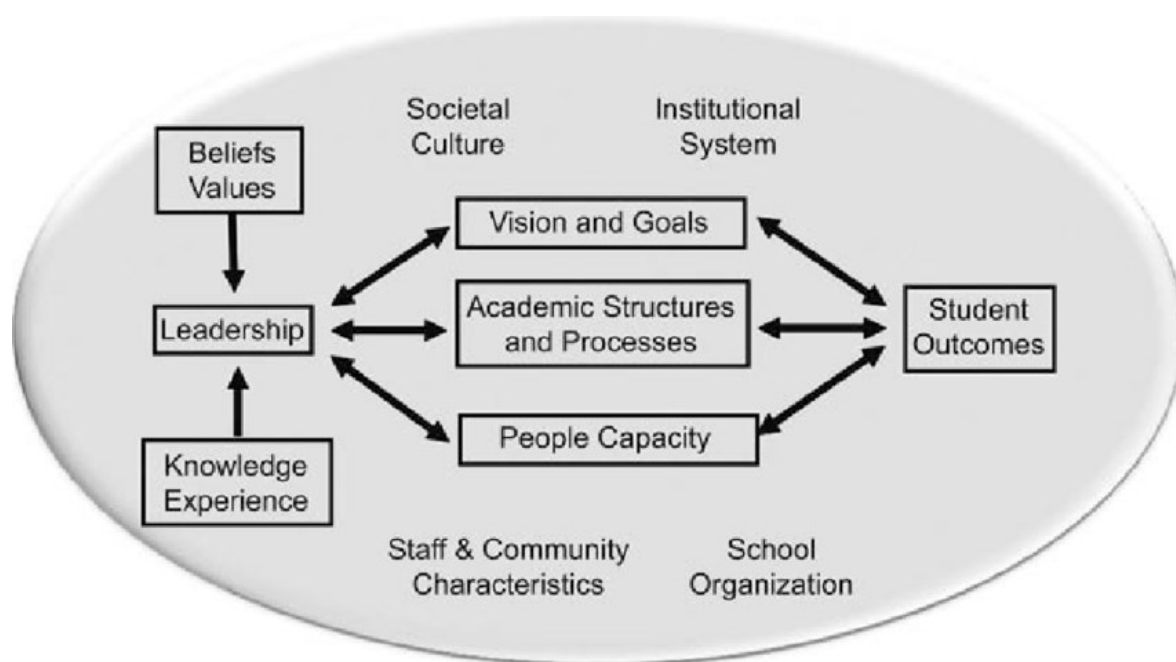


Figure 6. Hallinger's leadership for learning model (Hallinger, 2011)

Appendix 7

Fee Structure

Academic year 2018-19



Annual Enrollment Fee is collected in the beginning of the year to meet the large annual expenses incurred by the school such as purchasing textbooks, notebooks, vehicle maintenance, school infrastructure building, etc. In addition, Monthly fee is collected every month to meet the monthly expenses. Concessions are provided in both Annual Fee as well as the Monthly fee to a certain extent based on the financial condition of the student's family.

Class	Annual Enrollment Fee (Rs.)	Monthly Fee (Rs.)
L.K.G	8,500	550
U.K.G	11,500	580
I	13,000	600
II	14,000	630
III	14,500	650
IV	15,000	670
V	15,500	600
VI	16,500	630
VII	17,200	650
VIII	17,600	700
IX	18,500	1200
X	46,000	No Monthly Fee
XI	51,000	No Monthly Fee
XII	56,000	No Monthly Fee

Principal

Appendix 8

LOW-FEE GOOD QUALITY EARLY CHILDHOOD EDUCATION: A CASE STUDY OF A PRIVATE SCHOOL IN SOUTH INDIA

INTRODUCTION

You are invited to join a research study to look at factors which influence the quality of early childhood education (ECE) in low-fee private schools in South India. The research study is being undertaken to fulfill the research (thesis) requirements of a master's degree in Education and Globalisation at the University of Oulu, Finland. The decision to join, or not to join, is up to you.

WHAT IS INVOLVED IN THE STUDY

If you decide to participate you will be asked to give an in-depth interview on factors which influence your effectiveness as a preprimary teacher. This will take you about 60 minutes. The researcher will also observe your classroom during regular school hours, with prior intimation, for at least 3 hours to understand and document the quality of the early childhood environment in your classroom.

The investigator may stop the study or take you out of the study at any time he judges it is in your best interest. He may also remove you from the study for other reasons. He can do this without your consent.

You can stop participating at any time. If you stop you will not lose any benefits at your school.

BENEFITS TO TAKING PART IN THE STUDY

It is reasonable to expect the following benefits from this research: an in-depth understanding of how the case study school works to achieve good quality ECE while charging low fee from parents. However, we can't guarantee that you will personally experience benefits from participating in this study. Others may benefit in the future from the information we find in this study. E.g., the findings from this study may be useful to practitioners in low-fee private schools in similar contexts who wish to achieve good quality ECE.

CONFIDENTIALITY

The following steps will be taken to keep information about you confidential, and to protect it from unauthorized disclosure, tampering, or damage: the data collected in this study will be stored in digital format on an encrypted drive and will be accessible only to the principal researcher and other researchers at the University of Oulu, Finland. Your responses during the interviews will not be shared with your school administrators or school leaders. In reporting the findings of the study, your name and identify will be kept anonymous and no direct quotes by you which can be traced back to you will be used to ensure anonymity.

YOUR RIGHTS AS A RESEARCH PARTICIPANT

Participation in this study is voluntary. You have the right not to participate at all or to leave the study at any time. Deciding not to participate or choosing to leave the study will not result in any penalty or loss of benefits to which you are entitled, and it will not harm your relationship with school administrators or school leaders.

If you wish to withdraw from the study at any point, please email the researcher stating the same.

CONTACTS FOR QUESTIONS OR PROBLEMS

Call Rohit Daniel at +91-8749077700 or email Rohit Daniel at rohit.daniel@student oulu fi, student researcher, Education and Globalisation master's degree program, University of Oulu, Finland, if you have questions about the study, any problems, unexpected physical or psychological discomforts, any injuries, or think that something unusual or unexpected is happening.

Contact Elina Lehtomäki at elina.lehtomaki@oulu.fi, Professor of Education and Globalisation master's degree programme, University of Oulu, Finland if have any questions or concerns about your rights as a research participant.

CONSENT OF SUBJECT

Name of Subject:

Signature of Subject

Date:

Upon signing, the subject or the legally authorized representative will receive a copy of this form, and the original will be held in the subject's research record.

Appendix 9

LOW-FEE GOOD QUALITY EARLY CHILDHOOD EDUCATION: A CASE STUDY OF A PRIVATE SCHOOL IN SOUTH INDIA

INTRODUCTION

You are invited to join a research study to look at factors which influence the quality of early childhood education (ECE) in low-fee private schools in South India. The research study is being undertaken to fulfill the research (thesis) requirements of a master's degree in Education and Globalisation at the University of Oulu, Finland. The decision to join, or not to join, is up to you.

WHAT IS INVOLVED IN THE STUDY

If you decide to participate you will be asked to give an in-depth interview on how you as a school leader facilitate good quality ECE in your school. This will take you about 60 minutes.

The investigator may stop the study or take you out of the study at any time he judges it is in your best interest. He may also remove you from the study for other reasons. He can do this without your consent.

You can stop participating at any time. If you stop you will not lose any benefits at your school.

BENEFITS TO TAKING PART IN THE STUDY

It is reasonable to expect the following benefits from this research: an in-depth understanding of how the case study school works to achieve good quality ECE while charging low fee from parents. However, we can't guarantee that you will personally experience benefits from participating in this study. Others may benefit in the future from the information we find in this study. E.g., the findings from this study may be useful to practitioners in low-fee private schools in similar contexts who wish to achieve good quality ECE.

CONFIDENTIALITY

The following steps will be taken to keep information about you confidential, and to protect it from unauthorized disclosure, tampering, or damage: the data collected in this study will be stored in digital format on an encrypted drive and will be accessible only to the principal researcher and other researchers at the University of Oulu, Finland. Your responses during the interviews will not be shared with your school management/ owner. In reporting the findings of the study, your name and identity will be kept anonymous and no direct quotes by you which can be traced back to you will be used to ensure anonymity.

YOUR RIGHTS AS A RESEARCH PARTICIPANT

Participation in this study is voluntary. You have the right not to participate at all or to leave the study at any time. Deciding not to participate or choosing to leave the study will not result in any penalty or loss of benefits to which you are entitled, and it will not harm your relationship with your school management/ owner.

If you wish to withdraw from the study at any point, please email the researcher stating the same.

CONTACTS FOR QUESTIONS OR PROBLEMS

Call Rohit Daniel at +91-8749077700 or email Rohit Daniel at rohit.daniel@student oulu fi, student researcher, Education and Globalisation master's degree program, University of Oulu, Finland, if you have questions about the study, any problems, unexpected physical or psychological discomforts, any injuries, or think that something unusual or unexpected is happening.

Contact Elina Lehtomäki at elina.lehtomaki@oulu fi, Professor of Education and Globalisation master's degree programme, University of Oulu, Finland if have any questions or concerns about your rights as a research participant.

CONSENT OF SUBJECT

Name of Subject:

Signature of Subject

Date:

Upon signing, the subject or the legally authorized representative will receive a copy of this form, and the original will be held in the subject's research record.

Appendix 10

LOW-FEE GOOD QUALITY EARLY CHILDHOOD EDUCATION: A CASE STUDY OF A PRIVATE SCHOOL IN SOUTH INDIA

INTRODUCTION

The researcher is a master's degree student at the University of Oulu, Finland. As part of the research (thesis) requirements of the master's degree, the researcher is carrying out a case study to look at factors which influence the quality of early childhood education (ECE) in a low-fee private school in South India. In this regard, the research would like to use your school, Infant Jesus. The decision to join, or not to join, is up to you.

WHAT IS INVOLVED IN THE STUDY

If you grant access to conduct the research at your school, the research will:

1. Observe all your preprimary grades for at least 3 hours each to understand and document the quality of the early childhood environment in these grades.
2. Interview all your preprimary teachers to understand the influences on their effectiveness in the class.
3. Interview all the school leaders (e.g., principal, preprimary coordinator, school owner) to understand how the school leadership facilitates facilitate good quality ECE in your school.

The research activities will take place over two days, with classroom observations on day 1 and stakeholder interviews on day 2. Each of the interviews will be take about 60 minutes.

BENEFITS TO TAKING PART IN THE STUDY

It is reasonable to expect the following benefits from this research: an in-depth understanding of how the case study school works to achieve good quality ECE while charging low fee from parents. However, we can't guarantee that you will personally experience benefits from participating in this study. Others may benefit in the future from the information we find in this study. E.g., the findings from this study may be useful to practitioners in low-fee private schools in similar contexts who wish to achieve good quality ECE.

CONFIDENTIALITY

The following steps will be taken to keep information about you confidential, and to protect it from unauthorized disclosure, tampering, or damage: the data collected in this study will be stored in digital format on an encrypted drive and will be accessible only to the principal researcher and other researchers at the University of Oulu, Finland. Your responses during the interviews will not be shared with your school management/ owner. In reporting the findings of the study, your name and identify will be kept anonymous and no direct quotes by you which can be traced back to you will be used to ensure anonymity.

YOUR RIGHTS AS A RESEARCH PARTICIPANT

Participation in this study is voluntary. You have the right not to participate at all or to leave the study at any time. Deciding not to participate or choosing to leave the study will not result in any penalty or loss of benefits to which you are entitled, and it will not harm your relationship with your school management/ owner.

If you wish to withdraw from the study at any point, please email the researcher stating the same.

CONTACTS FOR QUESTIONS OR PROBLEMS

Call Rohit Daniel at +91-8749077700 or email Rohit Daniel at rohit.daniel@student.oulu.fi, student researcher, Education and Globalisation master's degree program, University of Oulu, Finland, if you have questions about the study, any problems, unexpected physical or psychological discomforts, any injuries, or think that something unusual or unexpected is happening.

Contact Elina Lehtomäki at elina.lehtomaki@oulu.fi, Professor of Education and Globalisation master's degree programme, University of Oulu, Finland if have any questions or concerns about your rights as a research participant.

CONSENT OF SUBJECT

Name of Subject:

Signature of Subject

Date:

Upon signing, the subject or the legally authorized representative will receive a copy of this form, and the original will be held in the subject's research record.

Appendix 11

Confidentiality Agreement

I, _____, agree to assist the *Researcher* (Rohit Daniel) with the study— Quality Early Childhood Education at low fees: case study in Chennai, India—by:

- Translating up to 8 in-depth qualitative interviews
- Observing the preprimary classrooms and scoring them on the TECERS tool

I agree to maintain full confidentiality when performing these tasks.

Specifically, I agree to:

1. Keep all the research information shared with me confidential by not discussing or sharing the research information in any form or format (e.g., audio recordings, transcripts) with anyone other than the *Researcher*;
2. Hold in strictest confidence the identification of any individual that may be revealed during the course of assisting the research tasks;
3. Not make copies of any raw data in any form or format (e.g., audio recordings, transcripts), unless specifically requested to do so by the *Researcher*;
4. Keep all raw data that contains identifying information in any form or format (e.g., audio recordings, transcripts) secure while it is in my possession. This includes:
 - keeping all digitized raw data in computer password-protected files and other raw data in a locked file;
 - closing any computer programs and documents of the raw data when temporarily away from the computer;
 - permanently deleting any e-mail communication containing the data; and
 - using closed headphones if transcribing recordings;
5. Give all raw data in any form or format (e.g., audio recordings, transcripts) to the *Researcher* when I have completed the research tasks;
6. After consulting with the *Researcher*, erase or destroy all research information in any form or format regarding this research project that is not returnable to the *Researcher*.

(Name)

(Signature)

(Date)

Appendix 12

Interview Protocol for Teacher Interviews

1. *I would like to start by getting to know you better.* Could you tell me in brief about your schooling and educational background?
2. *Moving on to your professional career.* When did you start working as a teacher? (Did you work anywhere else before joining this school and if so in what capacity?)
3. How/ why did you decide to become a teacher/ preprimary teacher? (Or what influenced your decision to become a teacher? And why a preprimary teacher in particular?)

Continuing about classes:

1. When you joined the school how did you know what you were supposed to do in the class?
2. So when a new teacher joins the school what kind of training or orientation does she go through to understand what she is supposed to do in the class?
3. How do you decide what to teach and when to teach? Is it the same for the other division?
4. How do you plan and prepare for your classes? When do you plan for your classes?
5. If you have any doubts regarding the curriculum or lesson plan, how do you clarify your doubts?
6. Could you describe the various ways you work together with other teachers at your school?
7. Could you describe the various ways the school supports you in your work?
8. Could you tell me about the various trainings you have attended at the school and how were these trainings helpful to you?
9. Could you describe the various ways the school leadership supports you in your work?
10. How has the assistant school leader impacted/ supported your work?
11. Do you have regular staff/ team meetings and what happens in these meetings? Circle time.
12. Could you describe the interactions between management and staff at your school?
13. You have been at the school for long. What has kept you from leaving the school?
14. What are the best and the worst things about this job/ working in this school?
15. Can you describe how you feel appreciate at your school, from whom and in what ways?
16. Could you describe what actions or steps you have taken to learn and develop as a teacher?

I would like to understand your views, as a preprimary teacher, on how children between ages 3 and 6 years, i.e., the preschool children that you teach in your preprimary grades

develop and learn. I would like to reiterate that there is no right or wrong answer. I just want to understand your views.

1. What do you expect your students to learn at the end of this academic year?
2. Could you describe the goals you have set for yourself or your class for this academic year? (IDELA) How were these goals set?
3. There are slow learners in every grade. What outcomes do you expect for these slow learners?
4. What can you as a teacher do to help these children who are slow learners?
5. What expectations do parents have for their children from you or from the school? HW?
6. How engaged are the parents in their children's education? How often do they engage with you or the school and how?
7. According to you, what is education? (Or what is the purpose of education?)
8. According to you, what is the role of school in the education of children?
9. What role does a teacher play in the development of a child?
10. Who else play a role in the development of a child?
11. According to you, what are the different areas or ways in which development happens in children the early years? (Can you give me some examples of such development?)
12. What areas of learning or development should the curriculum for preprimary grades focus on and why? Or what should we teach children in preprimary grades? (Break it down into Sr. KG and Jr. KG) And why do you think that we should focus on these areas?
13. According to you, how do little children learn during these early years?
14. According to you, what is the best way to teach children in preprimary grades? (Prompt examples of concepts such as numbers or living and non-living things, etc.)
15. According to you what is the vision of your school?

Is there anything you would like to add or do you have any questions for me?

Appendix 13

Interview Protocol for School Leader Interviews

I understand that every school leader works within a certain context with unique opportunities and challenges. Therefore, I would like to start this interview by first learning the history of your school.

1. Could you describe the history of your school? (When was the school established, by whom, what was the purpose for establishing this school, why this particular location, how has the school grown in subsequent years (key milestones), etc.)

The parents who enroll their children in your school are your primary customers and therefore have a unique role to play, directly through the fee that they pay you and indirectly through the kind of education they expect from the school. Therefore, let's now talk about your school's parent body.

2. Could you describe the parents' profiles that send their children to your school? (Where do they live, what do they do (profession), how much do they earn on average, what are their beliefs about education (particularly preprimary years), how do they engage with the school, why do parents enroll their children in your school, etc.?)

The next key stakeholder in a school would be the teachers and hence let's move on to teachers, with a particular reference to preprimary teachers.

3. Could you describe the teachers' profiles who work in your school (particularly the preprimary teachers)? (What are their qualifications, work experience, motivations for joining your school or for becoming a teacher, average salaries paid, attrition rate, beliefs about education, etc.?)
4. How do you select teachers? What the different skills you look for in teachers?

Another key element of a school is the curriculum that the school follows.

5. What curriculum does your school follow (particularly for preprimary years)? (Why was this curriculum selected? What was the school using before this, etc.?)

Since we are still understanding the context of your school, I would like to talk a bit about government regulations and laws which impact or affect the functioning of your school?

6. Are there any specific government regulations and norms which impact the functioning of your school (particularly the preprimary years)? If yes, how? (e.g., RTE Act, government curriculum)

Finally, in an attempt to understand the context of your school, I would like to know a bit about the organizational structure at your school.

7. Could you describe the organizational structure of your school? (Who are in leadership positions at the school, what is the hierarchy, roles and responsibilities of various people, etc.?)

Thank you for sharing so much about the context of your school. The information that you shared gives me a framework within which to study your school. Now, I would like to spend some time understanding who you are better. I would like to reiterate that there is no right or wrong answer. I just want to understand your beliefs and values as our beliefs and values ultimately direct our actions.

Personal beliefs, values, knowledge and skills:

8. According to you, what is 'education' and what role does a school play in the education of children?
9. According to you, which grades have the greatest impact on the life outcomes of children and why?
10. Accordingly to you, what should the curriculum of preprimary grades focus on? Or what do you want children to know or understand at the end of senior KG?
11. How do small children learn and what According to you, what is the most effective pedagogy or teaching and learning approach for the preprimary grades?
1. According to you, what is the role of a teacher in a classroom (w.r.t. to preprimary grades)?
2. What role do parents play in the education of children? (How do you support them in this role?)
12. What is the role of a school leader at a school? (Prompt about role in students' learning outcomes)
13. According to you, what are the key skills required of a good school leader?
14. According to you, how can a school leader motivate teachers and students?
15. What sort of a culture do you promote/ value at your school w.r.t. to the staff and students?
16. What are you doing to promote this culture?
17. Could you describe your journey as a school leader? (What motivated you to take up this role; in what capacity did you work before taking on this role, what did you study, etc.?)
18. Why do you believe that you are best suited for this role?

Thank you for sharing your beliefs and values with me. I would like to now move on the academic structures and processes at your school.

Academic structures:

3. How is the curriculum for the preprimary grades set in your school?
4. What teaching and learning style or approach does your school follow for preprimary grades?
5. *Teaching and learning practices are constantly evolving based on new research.*
What do you do to ensure that your teachers stay abreast with new practices?
6. How do you help your teachers become better teachers? (How do you identify their development areas or needs? How do you monitor your teachers' progress on these development areas?)
7. *Usually, a given curriculum consists of the core curriculum required to achieve the minimum learning outcomes as well as other extra and co-curricular portions.*
What do you do to ensure teachers are able to teach the core curriculum required to achieve the minimum learning outcomes in the time available during the academic year?
8. What do you do to ensure every student is achieving the minimum learning outcomes required for a student entering grade 1?
9. How do you track students' achievement on these minimum learning outcomes?
10. What do you do to ensure that your teachers regularly track students' progress on these minimum learning outcomes?
11. What are you doing to ensure that slow learners also achieve these goals?
12. How do you check whether these interventions are helping bridge the achievement gaps?

Organizations, including schools, usually have a vision as well as short term and long term goals that they set for themselves. Does your school also have a vision and goals?

Vision and goals:

1. What is the school's vision? (How was this vision set? How is the vision being shared with everyone?)
2. What are you as a school leader doing to ensure this vision is fulfilled?
3. What goals have you/ the school leadership set for the school? Could you describe your school's goals for your preprimary grades?
4. How were these goals set? Who decided these goals?
5. Could you describe how you ensure that your preprimary teachers and staff understand and are aligned on these goals?
6. Could you describe what you are doing to support these goals?

13. Could you describe how you monitor the school's overall performance on each of these goals?

I would like to wrap this interview by asking you two key questions.

14. What are some of the challenges that your school faces today? Are there any particular challenges pertaining to preprimary grades? How are you addressing these challenges?
15. Considering that you are a low-fee private school, how is the school doing financially?

Is there anything you would like to add or do you have any questions for me?

Appendix 14

Theme 4: Unorthodox recruitment criteria and teacher training model						
Sub-theme	Correspondent	Principal	Assistant school leader	Pre-primary coordinator	Senior KG teacher_2	Junior KG teacher_1
Teacher selection	Teaching selection criteria	Teaching selection criteria	Teaching selection criteria			
	Non-teaching selection criteria	Non-teaching selection criteria				
	Teacher selection process	Teacher selection process	Teacher selection process	Teacher selection process		
	Teacher training by senior teachers	Teacher training by senior teachers	Teacher training by senior teachers	Teacher training by senior teachers	Teacher training by senior teachers	Teacher training by senior teachers
	Initial challenges					
Teacher training		Initial training of teachers	Initial training of teachers	Initial training of teachers	Initial training of teachers	Initial training of teachers
	Training of teachers	Training by school leader	Training by school leader	Training by school leader	Training by school leader	Training by school leader
		Resistance to external training	School visits for teachers	School visits for teachers	School visits for teachers	School visits for teachers
	Non-academic expectation of teacher	Prioritizing teacher training	Usefulness of training	Usefulness of training	Usefulness of training	Usefulness of training
		Professional development	Higher education	Higher education	Higher education	Higher education
Education intervention		On the job learning	On the job learning	On the job learning	On the job learning	On the job learning
	Teacher training by external organizations	Montessori training of teachers	Resourcefulness in getting teachers trained	Learnings from school visits	Learnings from school visits	Learnings from school visits
	Education intervention	Education intervention	Education intervention	Education intervention	Education intervention	Education intervention
		Training by education intervention	Training by education intervention	Training by education intervention	Training by education intervention	Training by education intervention
		Part-time teacher training course	Other training	Other training	Other training	Other training

Table 3. Theme 4: Unorthodox recruitment criteria and teacher training model